

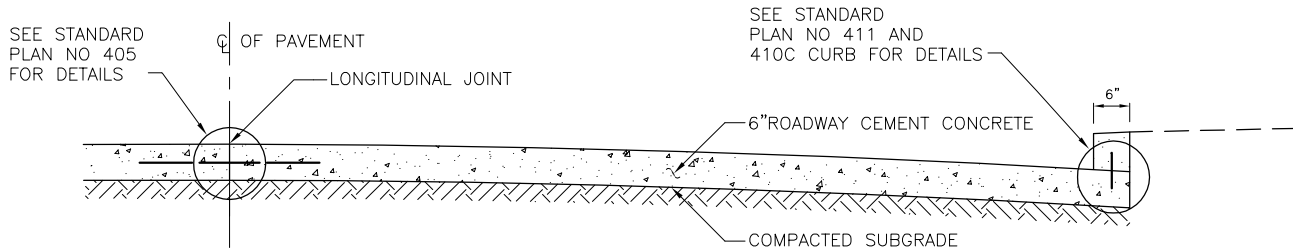
REF STD SPEC SEC 2-04



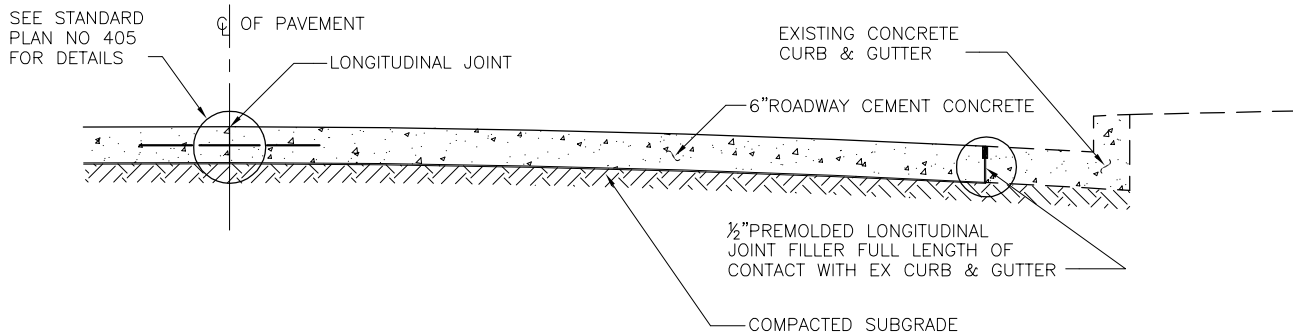
City of Seattle

NOT TO SCALE

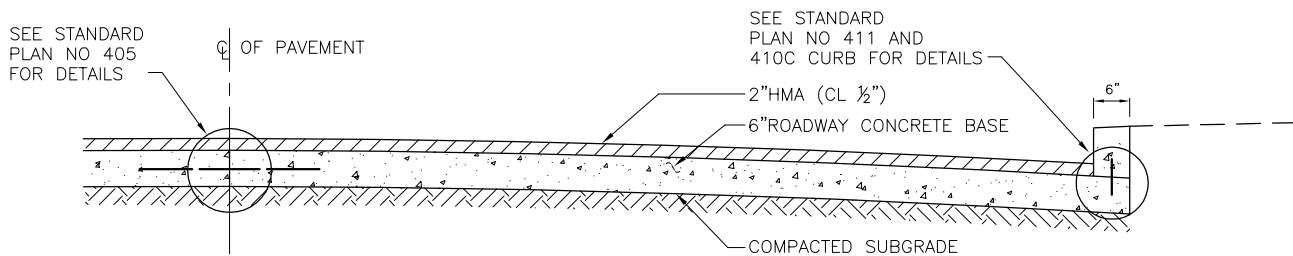
HALF SECTION, GRADING



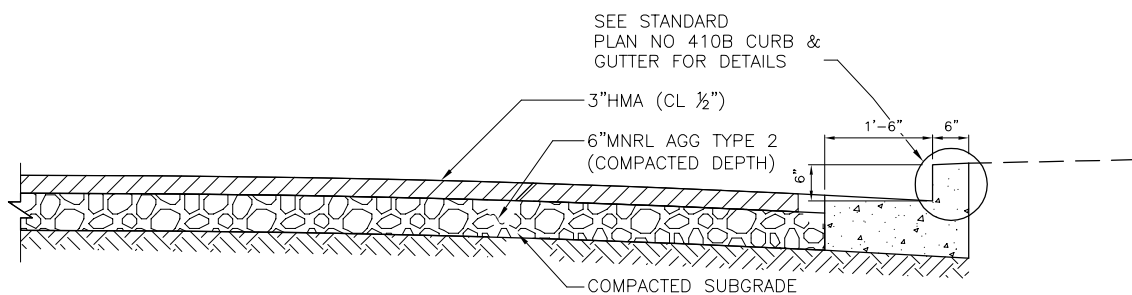
### 401A-CEMENT CONCRETE PAVEMENT WITH INTEGRAL CURB



### 401B-CEMENT CONCRETE PAVEMENT WITH EXISTING CURB & GUTTER



### 401C-HOT MIX ASPHALT ON CEMENT CONCRETE BASE



### 401D-HOT MIX ASPHALT OVER CRUSHED ROCK BASE

#### HMA DESIGN CRITERIA:

1. 3 MILLION ESAL'S UNLESS OTHERWISE SPECIFIED ON DRAWINGS
2. ASPHALT PG 64-22 UNLESS OTHERWISE SPECIFIED ON DRAWINGS

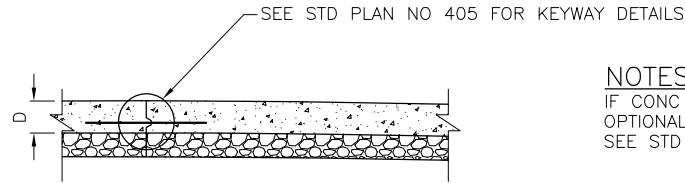
REF STD SPEC SEC 5-04, 5-05, 8-04



City of Seattle

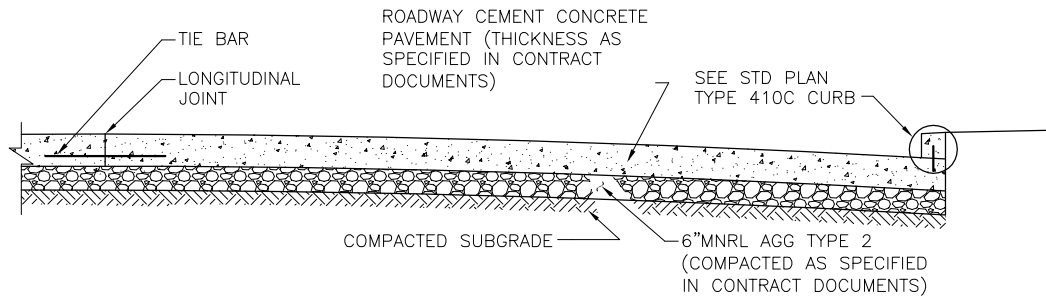
NOT TO SCALE

RESIDENTIAL PAVEMENT  
SECTIONS

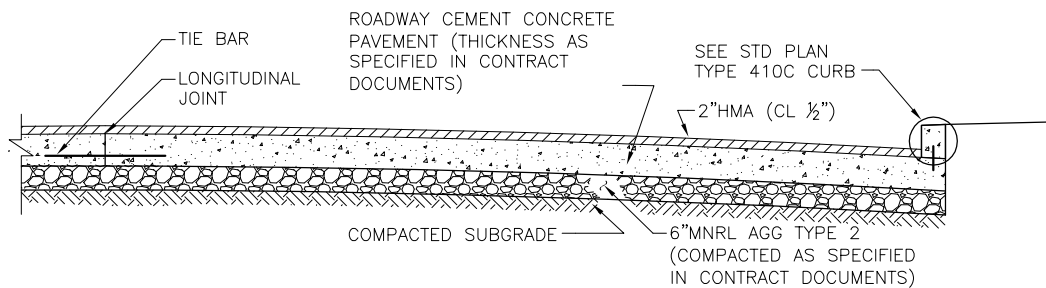
**NOTES:**

IF CONC THICKNESS IS 9 INCH OR GREATER  
 OPTIONAL KEYWAY MAY BE USED  
 SEE STD PLAN NO 405 FOR DETAILS

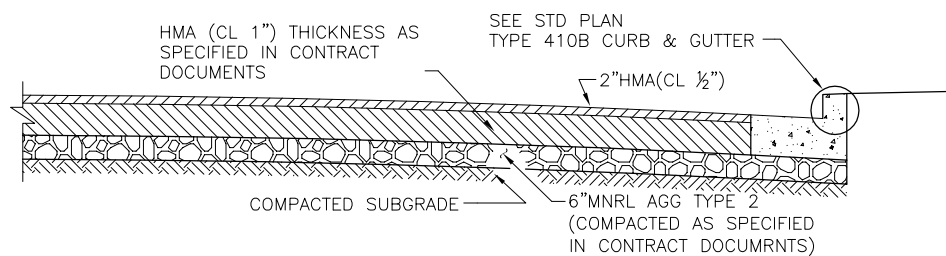
**OPTIONAL KEYWAY**  
 FOR LONGITUDINAL JOINT



**402A—ROADWAY CONCRETE PAVEMENT ON CRUSHED ROCK**



**402B—HOT MIX ASPHALT ON CEMENT CONCRETE ON CRUSHED ROCK**



**402C—HOT MIX ASPHALT ON CRUSHED ROCK BASE**

**HMA DESIGN CRITERIA:**

1. AN ESAL COUNT OF 10 MILLION UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS.
2. ASPHALT PG 64-22 UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS.

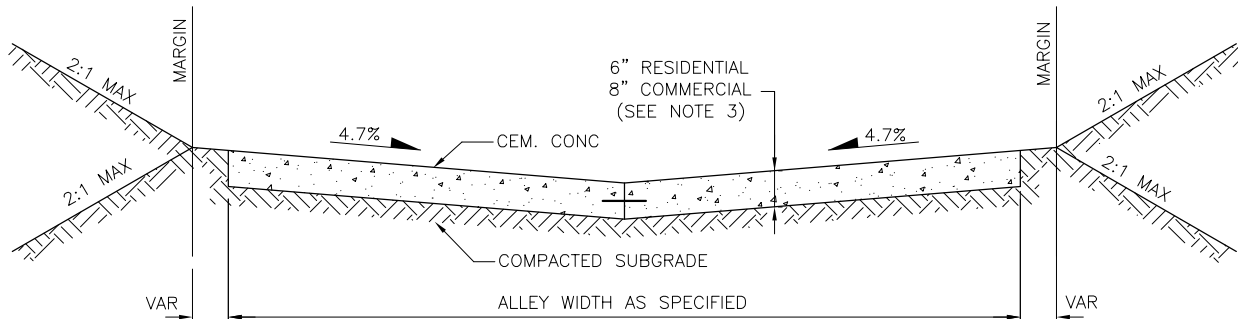
REF STD SPEC SEC 4-04, 5-05 &amp; 8-04



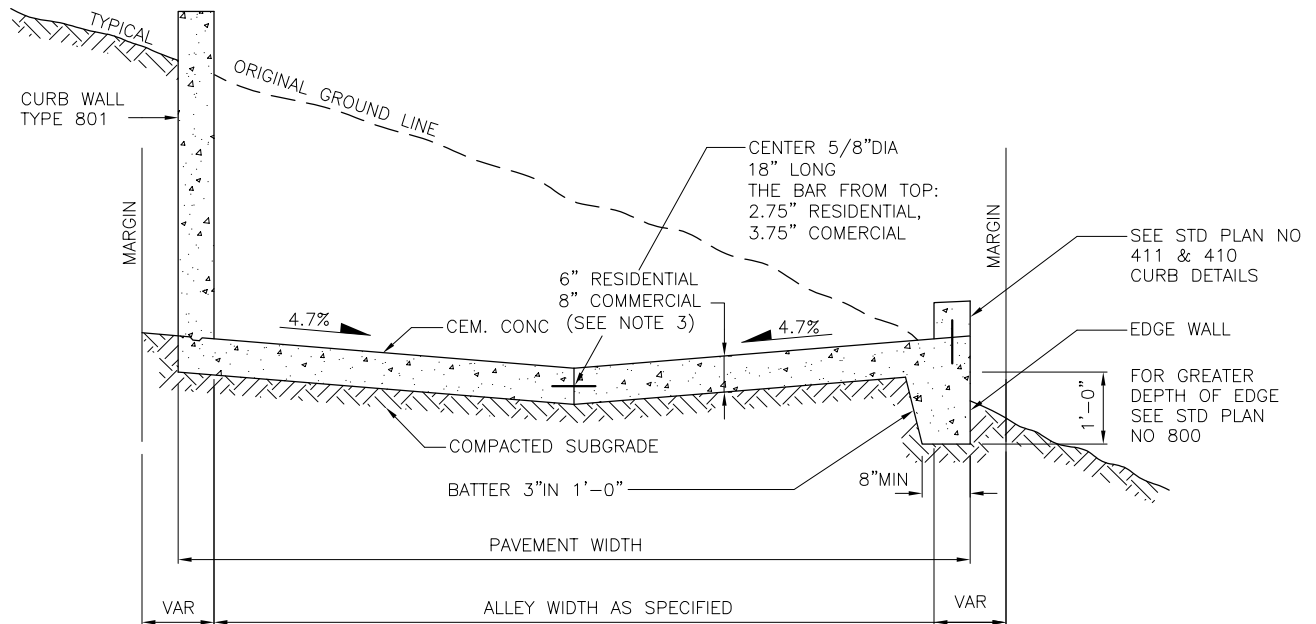
City of Seattle

NOT TO SCALE

**COMMERCIAL AND  
 ARTERIAL PAVEMENT  
 SECTIONS**



### CONCRETE ALLEY PAVEMENT



### CEMENT CONCRETE ALLEY PAVEMENT 403B—FOR SHALLOW EMBANKMENT AREA

#### NOTES:

1. WHEN ALLEY PAVEMENT IS 16'-0" OR WIDER  
PLACE CONSTRUCTION JOINT WITH TIE BAR PER  
STD PLAN NO 405 ALONG CENTERLINE OF ALLEY.
2. FOR ADA ACCESSIBLE ACCESS TO ENTRY IN ALLEY  
CONSIDER ALTERNATIVE DESIGN; SUBJECT TO  
APPROVAL BY THE ENGINEER.
3. 8" OR AS SHOWN IN CONTRACT OR APPROVAL  
BY THE ENGINEER.

REF STD SPEC SEC 8-19

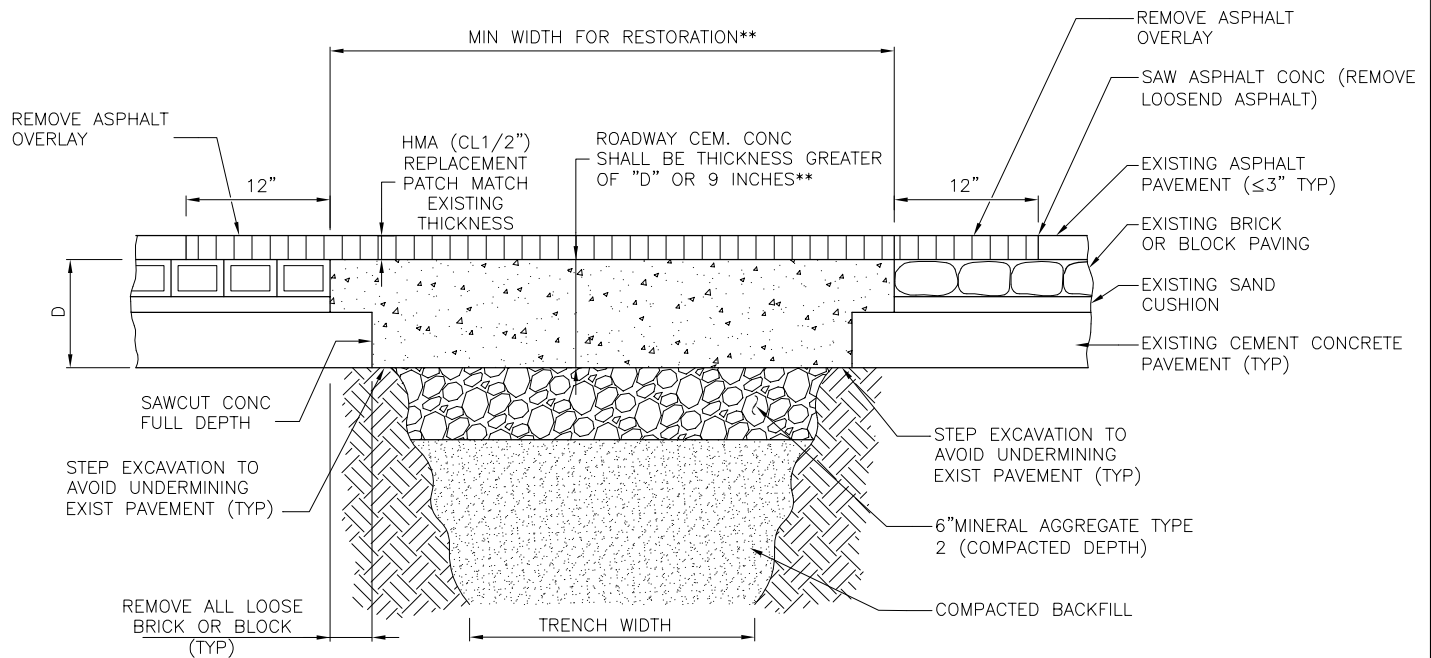


City of Seattle

NOT TO SCALE

ROADWAY CEMENT CONCRETE  
ALLEY PAVEMENTS





### ASPHALT OVER RIGID BASE OF BRICK OR STONE BLOCK PAVEMENT HALF SECTION

\*\* WIDTH OF RESTORATION SHALL MEET REQUIREMENTS OF STANDARD PLAN 404C.  
DEPTH OF RESTORATION SHALL MEET THE REQUIREMENTS OF "STREET AND SIDEWALK PAVEMENT OPENING AND RESTORATION RULES".

REF STD SPEC SEC 2-02, 5-04 & 5-05



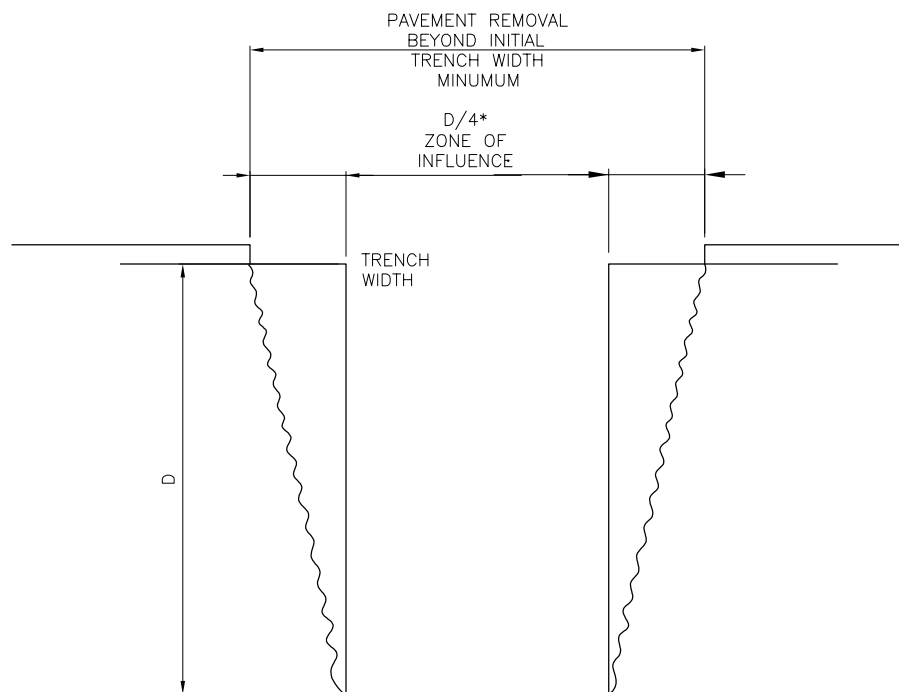
City of Seattle

NOT TO SCALE

PAVEMENT PATCHING

**NOTE:**

THE ZONE OF INFLUENCE IS DEPENDENT ON SOIL TYPE AND CONDITION METHOD. THE AMOUNT OF PAVEMENT REMOVAL THAT MAY BE REQUIRED TO ALLOW FOR ADEQUATE RE-COMPACTION OF THE SOIL ADJOINING THE EXCAVATION IS BASED ON THE ESTIMATE OF SOIL MOVEMENT RESULTING FROM THE INSTALLATION OF THE UTILITY.



\* ZONE OF INFLUENCE IS DEPENDENT ON THE TYPE AND CONDITION OF THE ADJACENT SOILS.

REF STD SPEC SEC 2-04



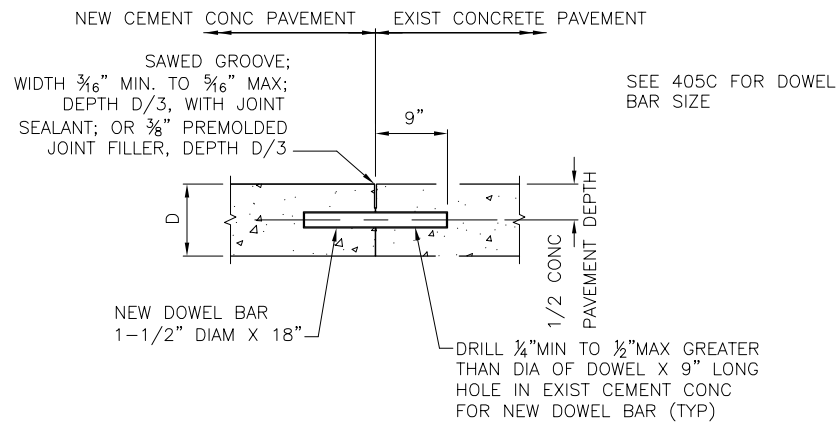
City of Seattle

NOT TO SCALE

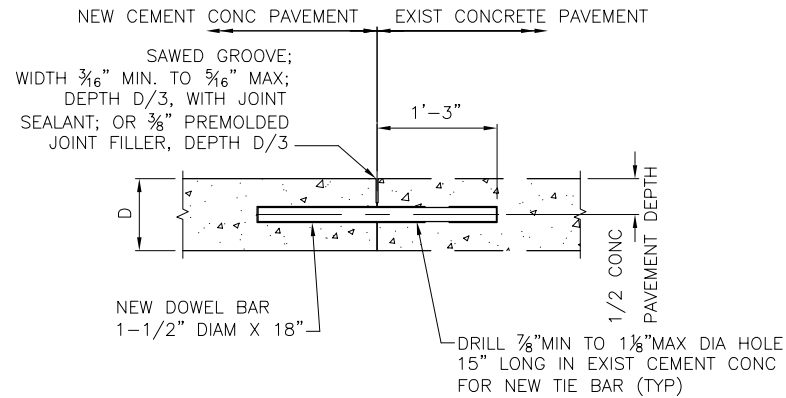
PAVEMENT OPENING  
ZONE OF INFLUENCE



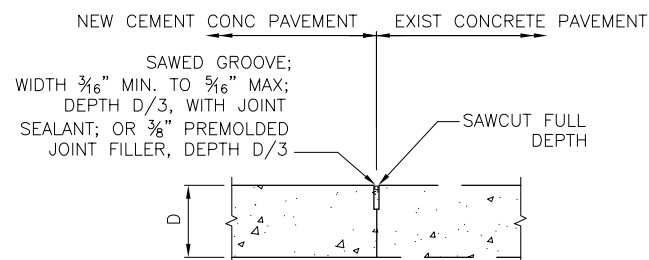




SECTION A-A  
DOWEL BAR DETAIL



SECTION B-B  
TIE BAR DETAIL



WITHOUT TIE BAR OR DOWEL  
USE ONLY WHEN SHOWN IN  
CONTRACT OR APPROVED BY  
THE ENGINEER

REF STD SPEC SEC 5-05



City of Seattle

NOT TO SCALE

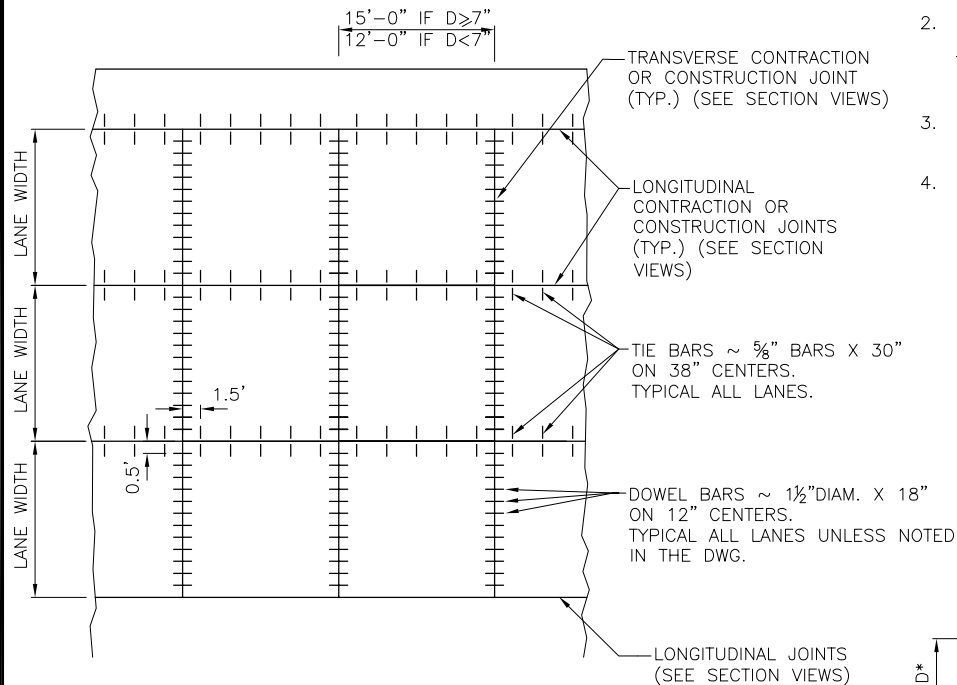
PAVEMENT REPAIR  
DOWEL BAR AND  
TIE BAR DETAILS

REV DATE: DEC 2010

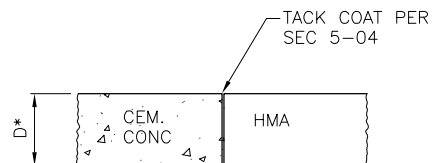
## NOTES

1. DO NOT PLACE LONGITUDINAL JOINTS OR SKEWED JOINTS WITHIN BIKE LANES.
2. WHEN A JOINT IS WITHIN 18 INCHES OF A CASTING JOINTS SHOULD BE SKEWED TO MEET THE CASTING AT 90 DEGREES UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR SHOWN ON THE DRAWINGS.
3. SEE STD PLAN NO 406 OR DRAWINGS FOR REBAR DETAIL AROUND CASTING 18 INCHES OR GREATER FROM JOINTS.
4. DOWEL BARS SHALL NOT BE PLACED WITHIN 15 INCHES OF THE EDGE OF PAVEMENT OR A PARALLEL JOINT.

DEPTH (D) OF RDWY CEM. CONC	DOWEL BAR SIZE (DIA Ø)
$6" \leq D < 9"$	1"X18"
$9" \leq D < 11"$	1¼"X18"
$11" \leq D$	1½"X18"

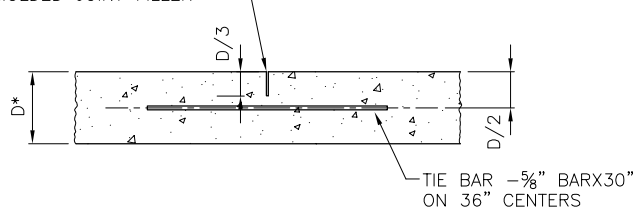


PLAN VIEW  
PANEL REPLACEMENT

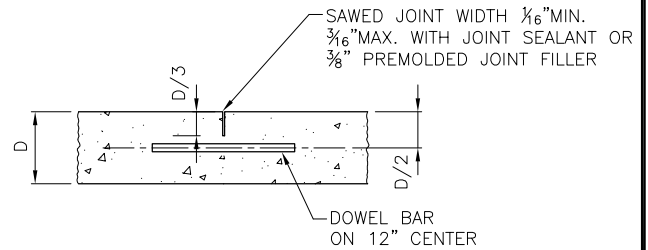


SECTION VIEW  
CEM. CONC TO HMA  
BUTT JOINT

SAWED JOINT WIDTH 1/8" MIN.  
3/16" MAX. WITH JOINT SEALANT OR  
3/8" PREMOLDED JOINT FILLER



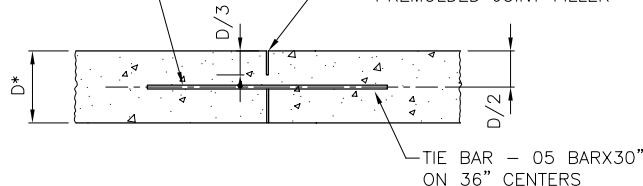
SECTION VIEW  
LONGITUDINAL CONSTRUCTION JOINT



SECTION VIEW  
TRANSVERSE CONSTRUCTION JOINT

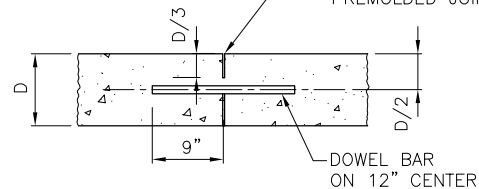
DRILL AND GROUT (WHEN APPLICABLE)

SAWED GROOVE ~ WIDTH 3/16" MIN., 5/16" MAX. WITH JOINT SEALANT OR 3/8" PREMOLDED JOINT FILLER



SECTION VIEW  
LONGITUDINAL CONSTRUCTION JOINT

SAWED GROOVE ~ WIDTH 3/16" MIN., 5/16" MAX. WITH JOINT SEALANT OR 3/8" PREMOLDED JOINT FILLER



SECTION VIEW  
TRANSVERSE CONSTRUCTION JOINT

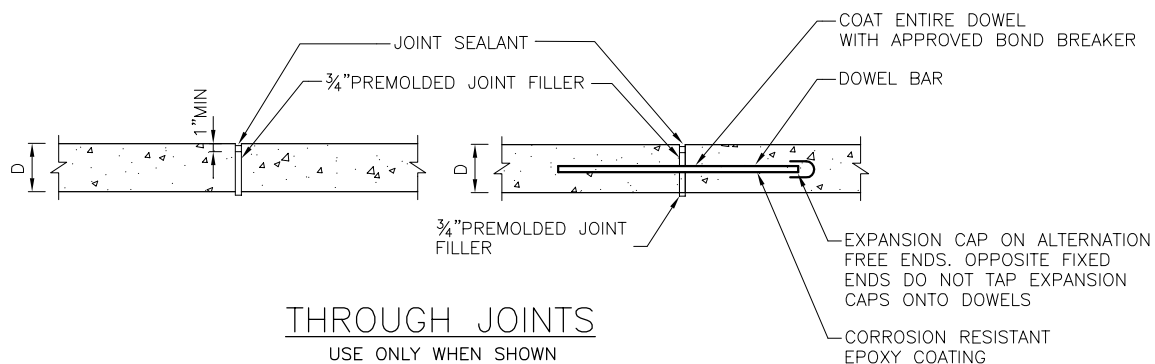
REF STD SPEC SEC 5-05



City of Seattle

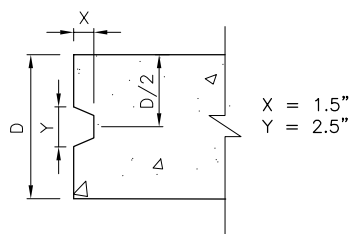
NOT TO SCALE

ROADWAY CONCRETE PAVEMENT  
JOINTS



### THROUGH JOINTS

USE ONLY WHEN SHOWN  
IN CONTRACT OR APPROVED  
BY THE ENGINEER



### KEYWAY DETAIL

LONGITUDINAL JOINT WITH KEYWAY  
(OPTIONAL FOR  $\geq 9$  INCHES ONLY)

### NOTES

USE OF OPTIONAL KEYWAY MAY BE REVOKED BY  
THE ENGINEER AT ANYTIME DUE TO QUALITY  
CONTROL ISSUES WITH MAINTAINING PLACEMENT  
REQUIREMENTS WITHIN  $\pm \frac{3}{8}$  INCH VERTICALLY.

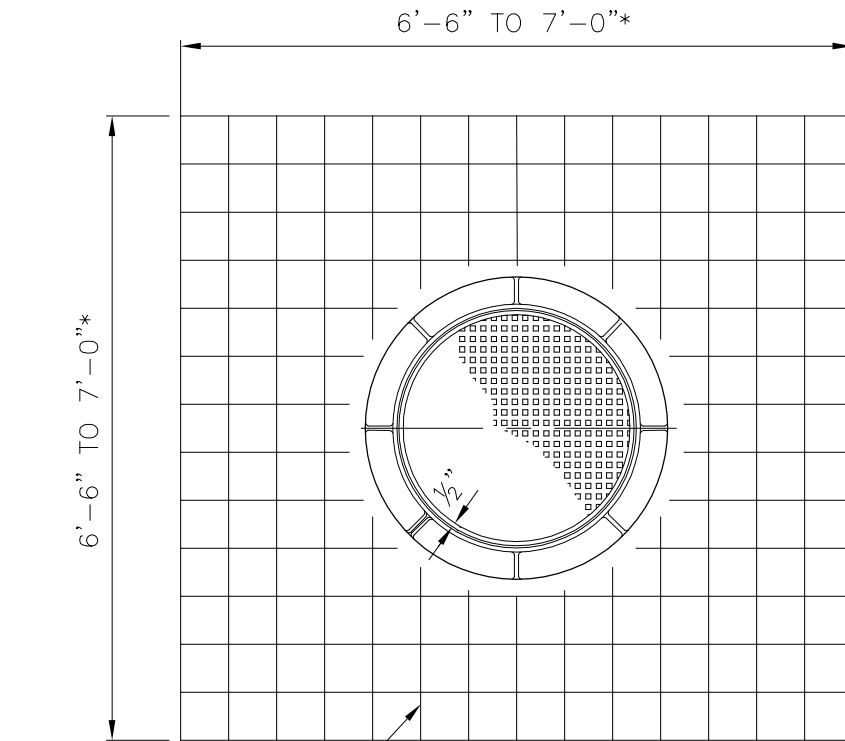
REF STD SPEC SEC 5-05



City of Seattle

NOT TO SCALE

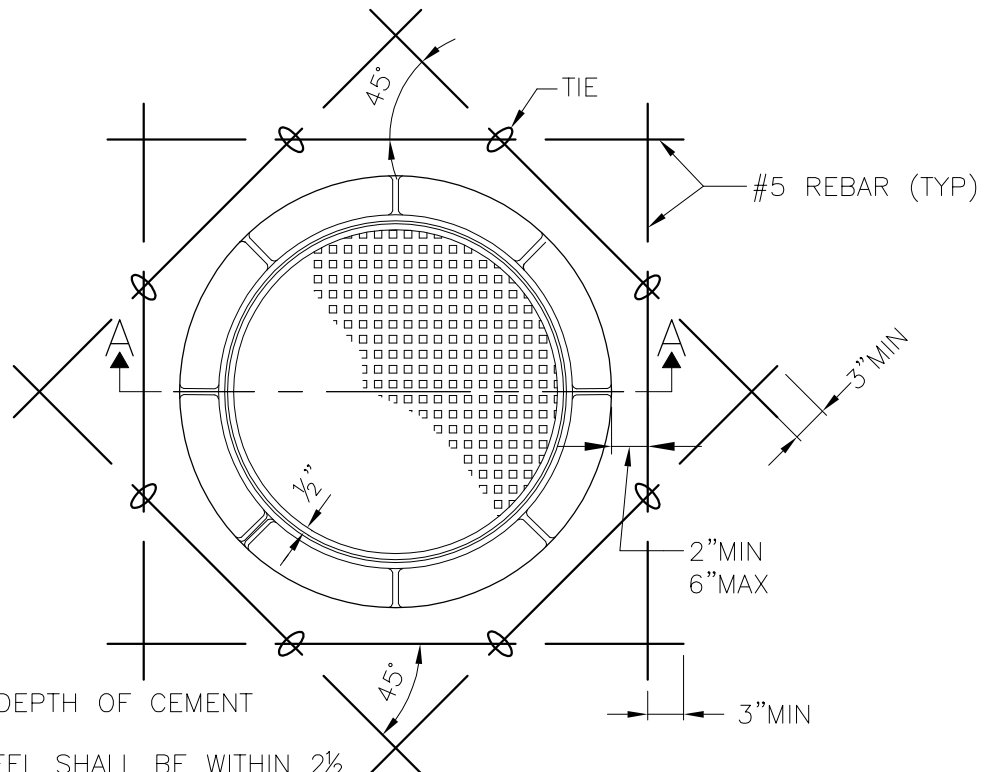
THROUGH JOINTS  
AND OPTIONAL KEYWAYS  
FOR CEM CONC RDWY



4"X4" W2.9 WIRE  
MESH

NOTES:

1. PLACE WIRE MESH AT  $\frac{1}{2}$  DEPTH OF CEMENT CONCRETE.
2. \*THE DIMENSIONS OF THE MESH SHALL BE ADJUSTED WHERE PAVEMENT JOINTS ARE ENCOUNTERED.
3. NO REINFORCING STEEL SHALL BE WITHIN  $2\frac{1}{2}$  INCHES OF ANY CEMENT CONCRETE SURFACE OR JOINT.



NOTES:

1. PLACE REBAR AT  $\frac{1}{2}$  DEPTH OF CEMENT CONCRETE.
2. NO REINFORCING STEEL SHALL BE WITHIN  $2\frac{1}{2}$  INCHES (3 INCHES DESIRED) OF ANY CEMENT CONCRETE SURFACE OR JOINT.

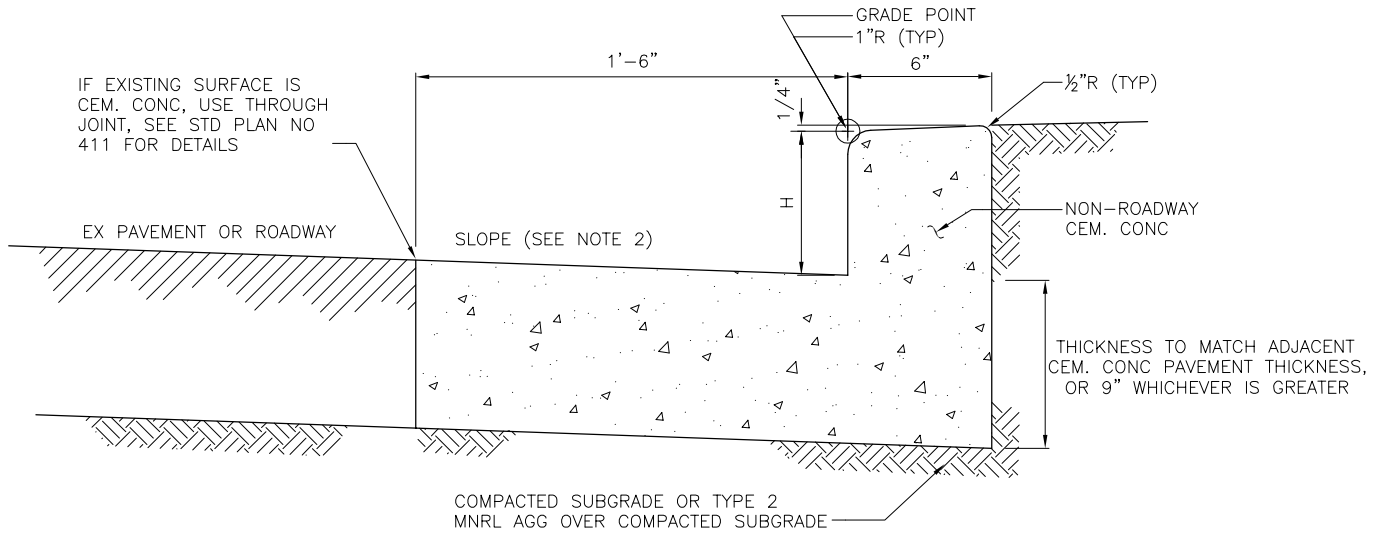
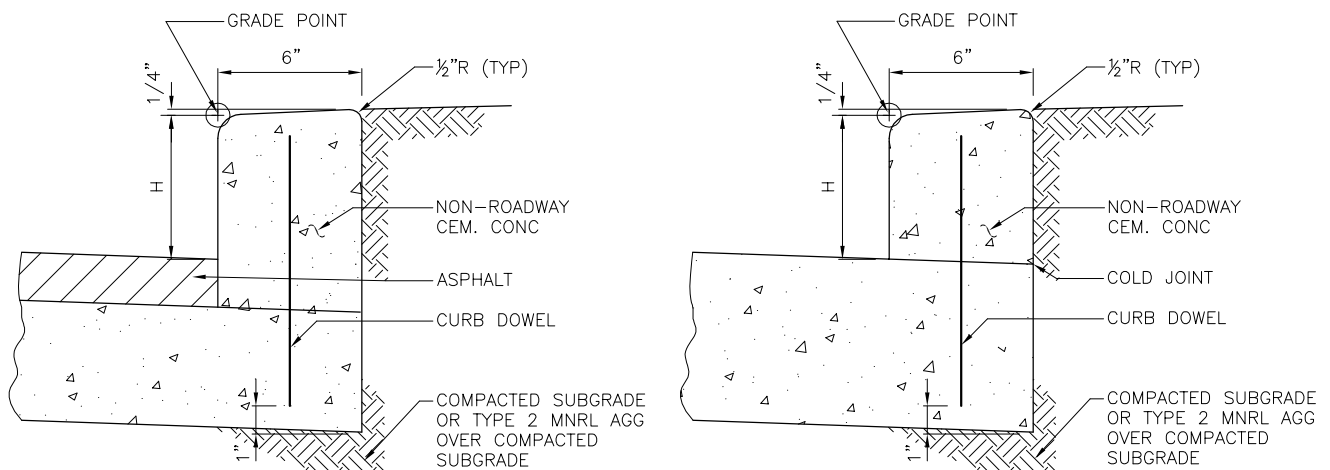
REF STD SPEC SEC 5-05



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NOT TO SCALE

**FRAME & COVER CEMENT  
CONCRETE REINFORCEMENT  
DETAIL**

**410B CURB & GUTTER****410C CURB****NOTES:**

1. "H" SHALL BE 6" FROM FINISHED ROADWAY GRADE UNLESS OTHERWISE SHOWN ON DRAWINGS
2. GUTTER SHALL BE SLOPED THE SAME AS ADJACENT PAVEMENT OR 2% MIN, WHICHEVER IS GREATER.
3. SEE STD PLAN NO 411 FOR CURB DOWELS

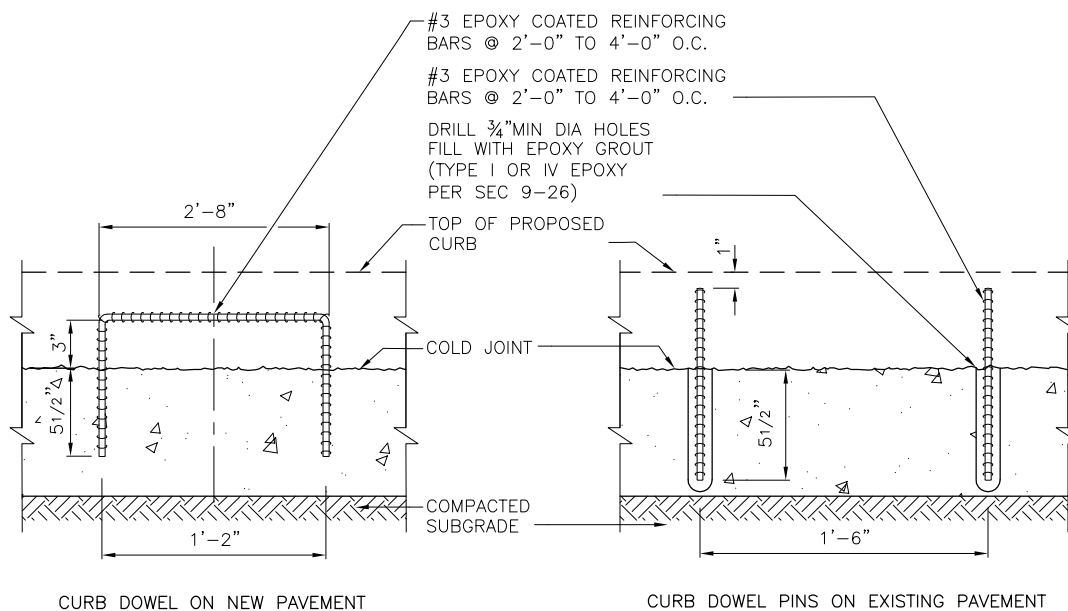
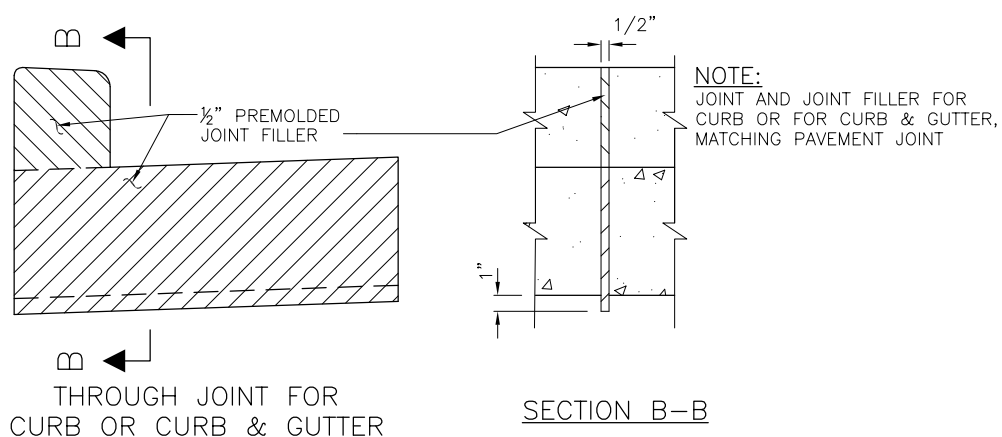
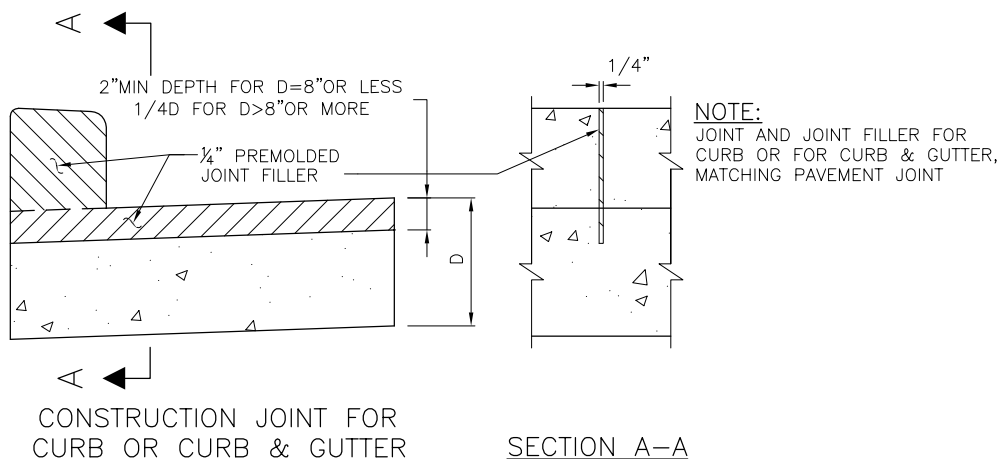
REF STD SPEC SEC 8-04



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NOT TO SCALE

TYPE 410 CURB



## DOWELS FOR DOWELLED CURB CONSTRUCTION

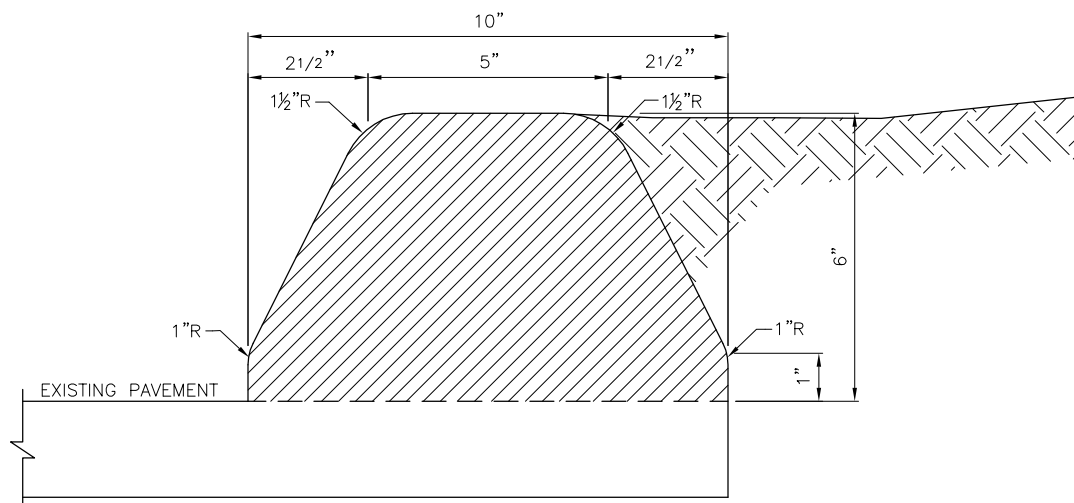
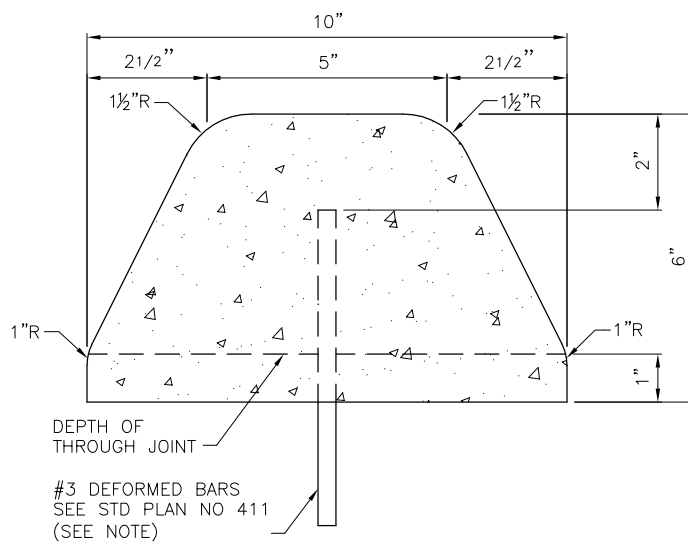
REF STD SPEC SEC 6-02 & 8-04



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NOT TO SCALE

## CURB JOINTS & DOWELS

EXTRUDED ASPHALT CONCRETE CURBEXTRUDED CEMENT CONCRETE CURB**NOTE:**

ALTERNATELY, THE USE OF EPOXY BONDING AGENT,  
IN PLACE OF #3 DEFORMED BARS, WILL BE ALLOWED.

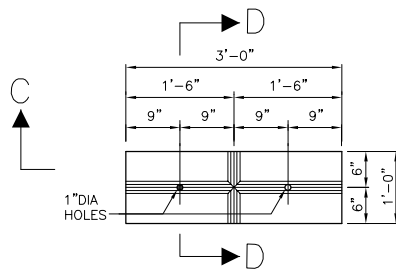
REF STD SPEC SEC 8-06



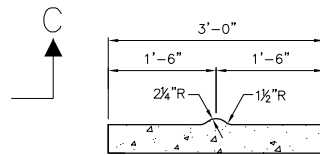
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NOT TO SCALE

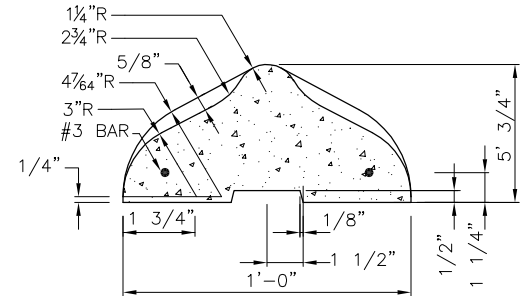
EXTRUDED CURB



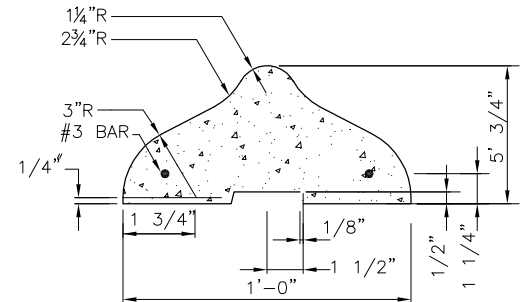
CURB PLAN



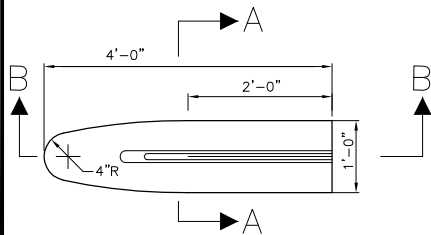
SECTION C-C



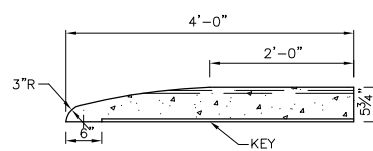
SECTION D-D



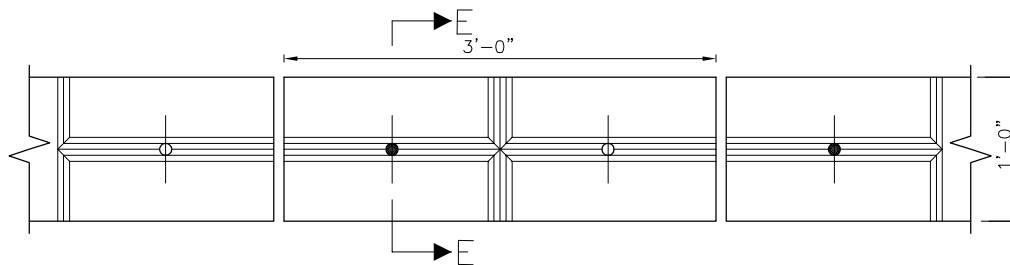
SECTION A-A



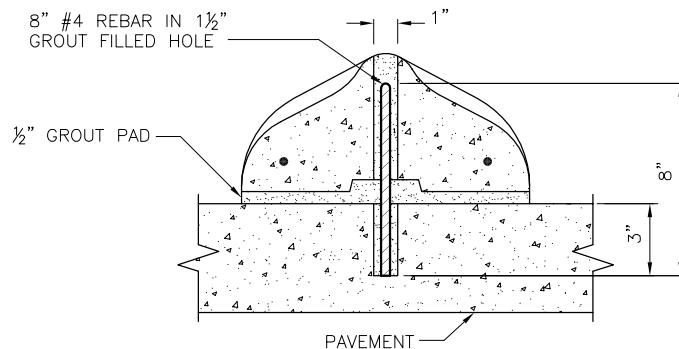
NOSING



SECTION B-B

INSTALLATION DETAIL FOR STRAIGHT  
PRECAST TRAFFIC CURB

NOTE: INSTALL 8" #4 REBAR IN EVERY OTHER  
HOLE AND FILL HOLE WITH GROUT



SECTION E-E

REF STD SPEC SEC 8-07



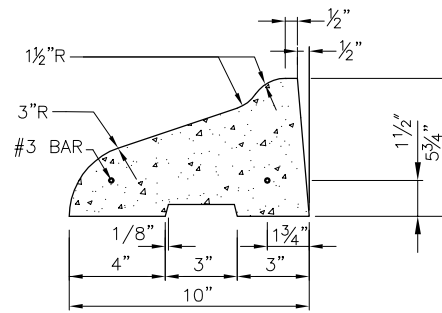
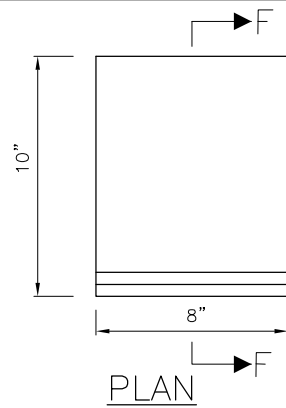
City of Seattle

NOT TO SCALE

3' PRECAST TRAFFIC CURB  
(DUAL SLOPED)

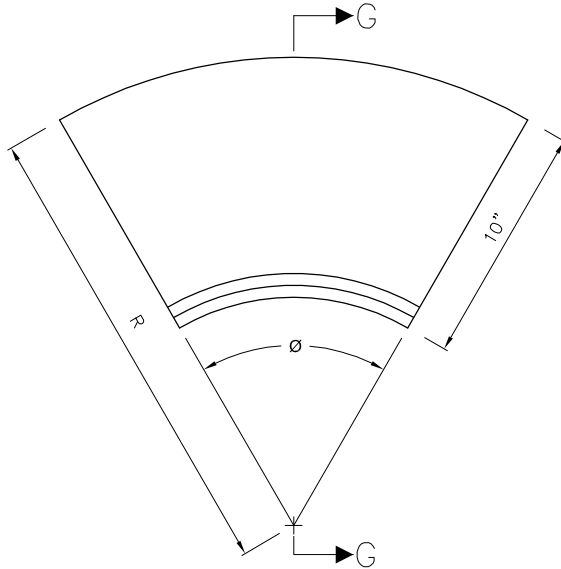
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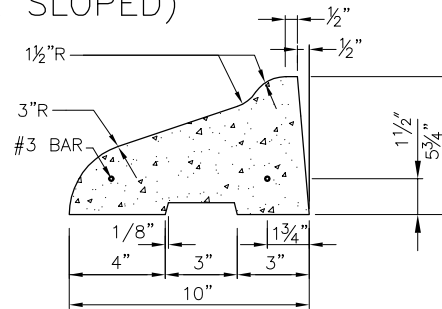


SECTION F-F

### 8" STRAIGHT BLOCK CURB (SINGLE SLOPED)



RADIAL CURB



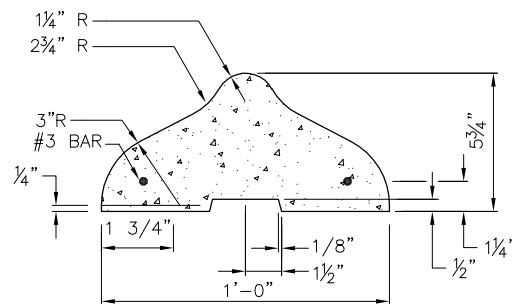
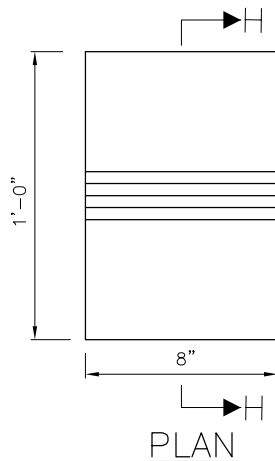
SECTION G-G

### RADIAL CURB

UNIT	RADIUS	CURB RETURN ANGLE(Ø)MULTIPLE
R1	1'-3"	45°00'
R2	1'-10"	30°00'
R3	2'-6"	22°30'
R4	5'-0"	11°27.54'
R5	10'-0"	5°43.77'

FOR RADII GREATER THAN 10'-0" USE  
SEGMENTS OF STRAIGHT BLOCK CURB

RADIUS CURB TABLE



SECTION H-H

### 8" STRAIGHT BLOCK CURB (DUAL SLOPED)

REF STD SPEC SEC 8-07

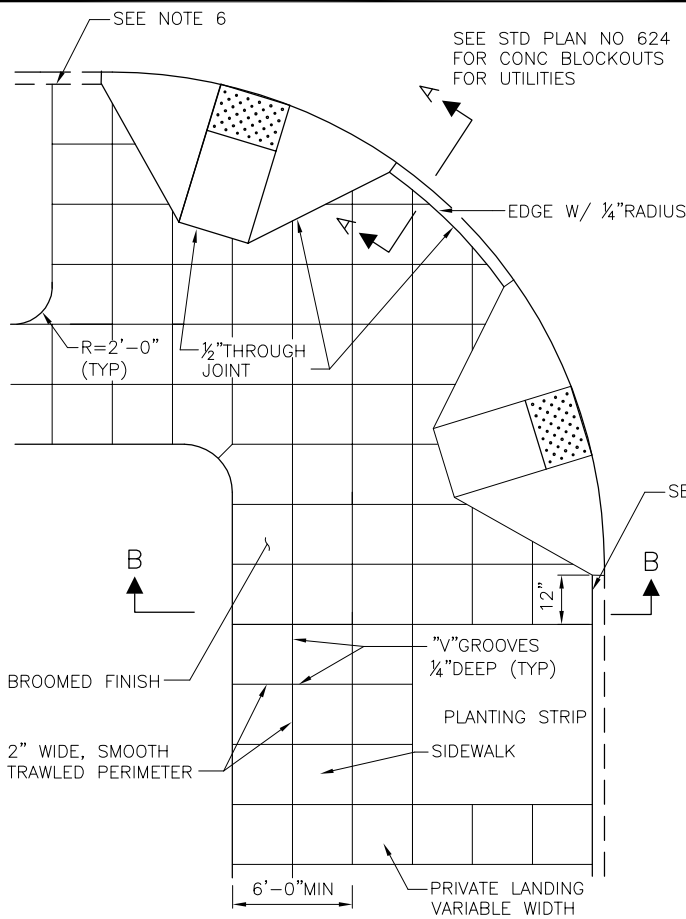
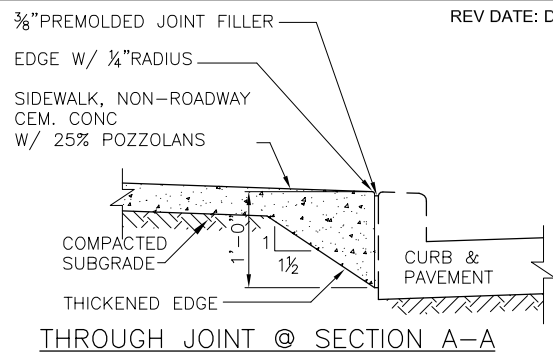


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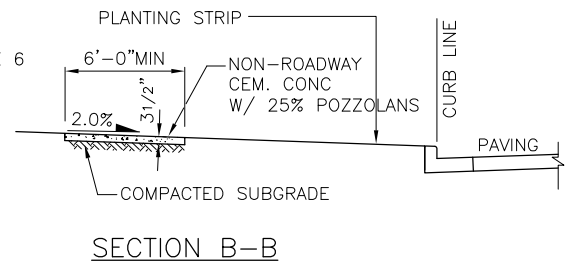
NOT TO SCALE

### 8" BLOCK AND RADIAL TRAFFIC CURB

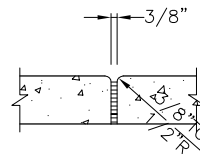
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TYPICAL SIDEWALK & CURB RAMP DETAIL  
5'-0" WIDE

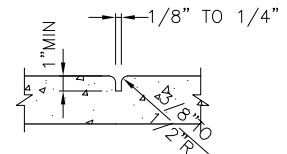
UNLESS CURB IS MONOLITIC WITH SIDEWALK



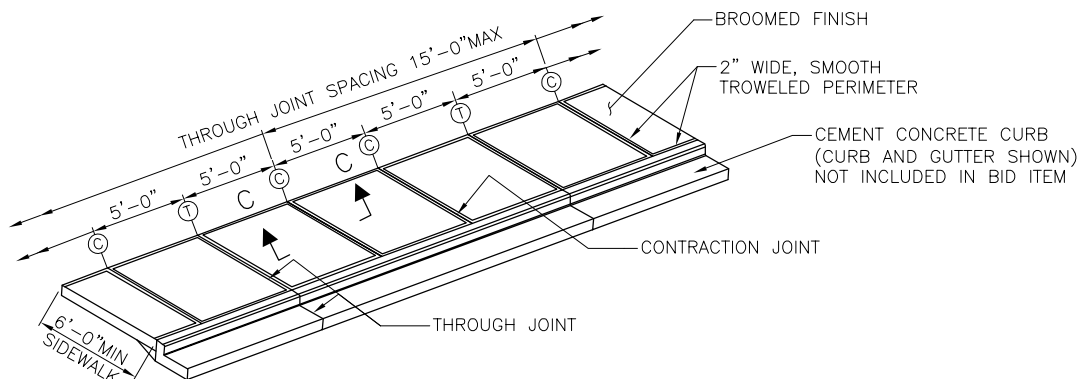
SECTION B-B



① THROUGH JOINT



② CONTRACTION JOINT



TYPICAL SIDEWALK DETAIL

## NOTES:

1. 1/2" THROUGH JOINTS SHALL BE LOCATED AS REQUIRED BY SECTION 8-14.3(6).
2. "V" GROOVE SCORING SHALL MATCH PATTERN IN ADJACENT EXISTING SIDEWALK. IN BUSINESS DISTRICTS, USE 2' SQUARE SCORING PATTERN. WHERE THERE IS NO ADJACENT EXISTING SIDEWALK, USE 5'-0" SCORING SHOWN IN TYPICAL SIDEWALK DETAIL.
3. FOR CURB RAMPS, SEE STANDARD PLAN 422.
4. FOR TREE PITS, SEE STANDARD PLAN 424.
5. WHEN PLANTING STRIP PAVEMENT IS APPROVED, 1/2" THROUGH JOINT IS REQUIRED ALONG ENTIRE PERIMETER.
6. 12" MINIMUM BETWEEN EDGE OF RAMP WING AND PLANTING STRIP IS DESIRABLE.
7. ALL SIDEWALK SHALL BE NON-ROADWAY CEM CONC W/ 25% POZZOLANS.

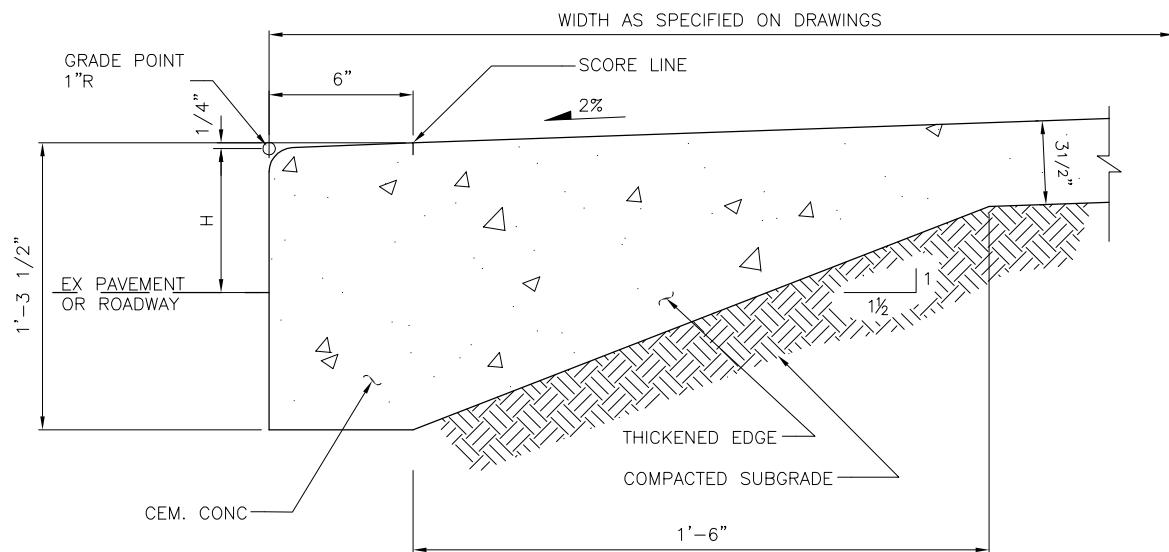
REF STD SPEC SEC 8-14



City of Seattle

NOT TO SCALE

CONCRETE SIDEWALK DETAILS

NOTES:

1. "H" SHALL BE 6" FROM FINISHED ROADWAY GRADE  
UNLESS OTHERWISE SPECIFIED

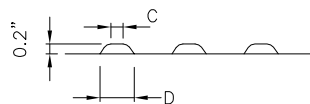
REF STD SPEC SEC 8-14



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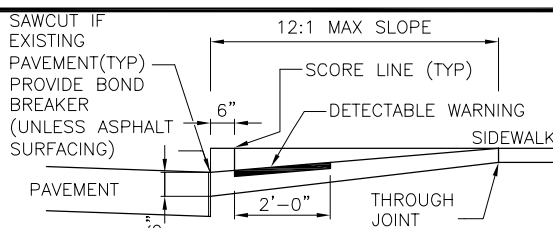
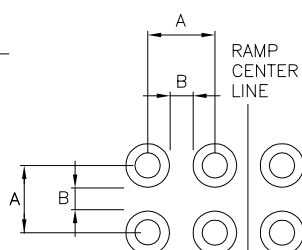
NOT TO SCALE

**SIDEWALK WITH  
MONOLITHIC CURB**



	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	50% TO 65% OF D	
D	0.9"	1.4"

TRUNCATED DOMES PATTERN -DETECTABLE  
WARNING CONC PANELS

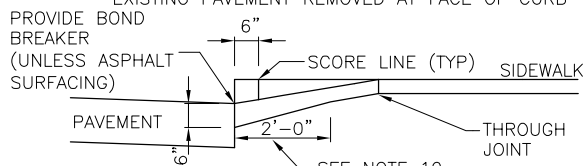


SECTION A-A

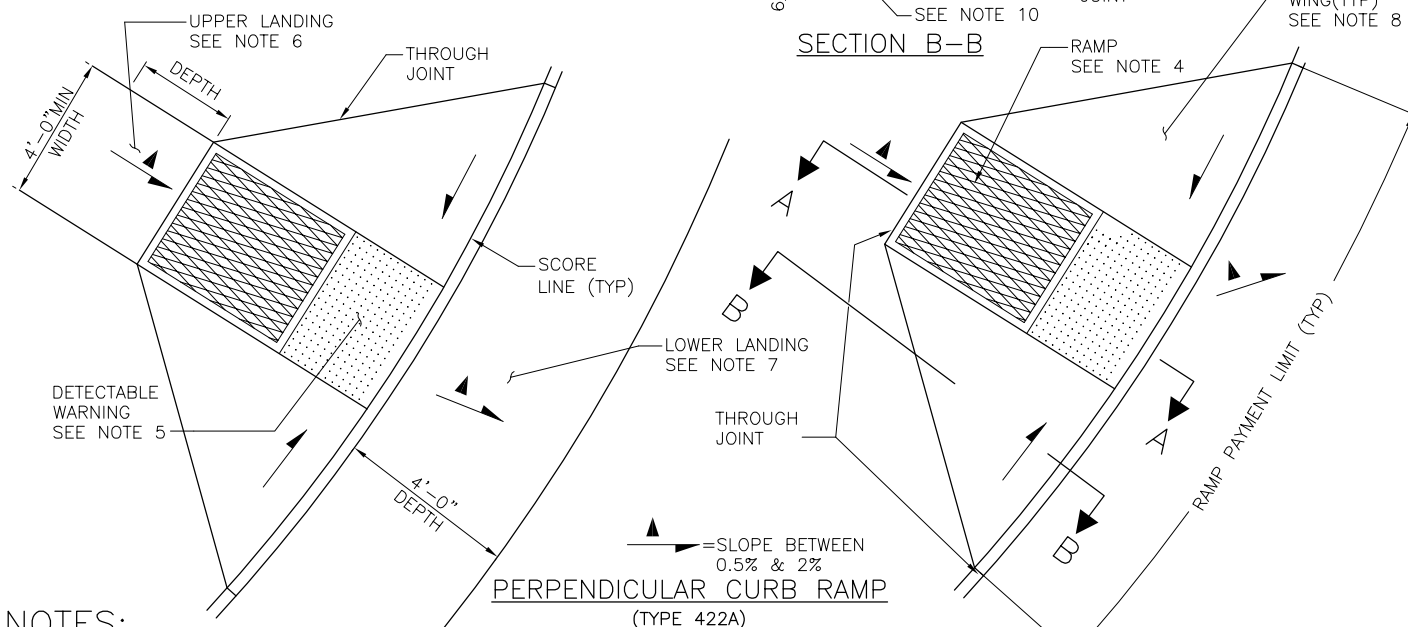
CURB MONOLITHIC WITH RAMP.

NEW PAVEMENT BLOCKED OUT FULL DEPTH.

EXISTING PAVEMENT REMOVED AT FACE OF CURB



SECTION B-B



## NOTES:

1. TYPE 422A PERPENDICULAR CURB RAMP SHALL BE USED UNLESS OTHERWISE DIRECTED BY ENGINEER.
2. TWO CURB RAMP SHALL BE INSTALLED AT EACH CORNER UNLESS OTHERWISE DIRECTED BY ENGINEER. RECOMMENDED MINIMUM DISTANCE BETWEEN TWO ADJACENT CURB RAMP SHALL BE 3'-0". WHERE SPACE IS RESTRICTED THE MINIMUM DISTANCE BETWEEN TWO ADJACENT CURB RAMP MAY BE REDUCED TO 1'-0".
3. CURB RAMP SHALL BE CONSTRUCTED WITH COMPANION RAMP ON OPPOSITE SIDE OF THE ROADWAY UNLESS OTHERWISE DIRECTED BY ENGINEER.
4. RAMP CENTERLINE SHALL BE RADIAL / PERPENDICULAR TO THE ALIGNMENT OF THE FACE OF CURB. RAMP SURFACE SHALL HAVE A MAXIMUM SLOPE 12H:1V AND A MINIMUM WIDTH OF 4'-0". THE CROSS SLOPE OF THE RAMP SURFACE SHALL BE MAXIMUM OF 50H:1V. RAMP SURFACE SHALL HAVE A TEXTURED SURFACE OBTAINED WITH A FLATTENED EXPANDED METAL  $\frac{3}{4}$ " - 9 - 11 MESH PRESSED INTO THE STILL FRESH CONCRETE. LONG AXIS OF THE DIAMOND SHALL BE PERPENDICULAR TO THE CURB. MAXIMUM RAMP LENGTH SHALL BE 15 FEET.
5. DETECTABLE WARNING SHALL HAVE A TRUNCATED DOME PATTERN AS SHOWN, A MINIMUM WIDTH OF 2'-0" AND SHALL BE PLACED AT THE RAMP BOTTOM STARTING AT THE BACK OF CURB. DETECTABLE WARNING COLOR SHALL BE "CITY OF SEATTLE SAFETY YELLOW", UNLESS OTHERWISE DIRECTED.
6. UPPER LANDING SHALL BE FULL WIDTH OF THE RAMP AND SHALL HAVE A MINIMUM DEPTH OF 4'-0". SLOPE ON THE UPPER LANDING SHALL BE BETWEEN 0.5% AND 2%. AVOID PLACING HANDHOLES, UTILITY CASTINGS OR OTHER OBSTRUCTIONS IN THE UPPER LANDING.
7. LOWER LANDING SHALL BE FULL WIDTH OF THE RAMP AND SHALL EXTEND A MINIMUM 4'-0" BEYOND DETECTABLE WARNING. THE LOWER LANDING SHALL BE THE WIDTH OF THE RAMP AND FALL WHOLLY WITHIN THE LEGAL CROSSWALK, MARKED OR UNMARKED. SLOPE ON THE LOWER LANDING SHALL BE BETWEEN 0.5% AND 2%. GUTTER FLOW LINE SHALL BE SURVEYED BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ENSURE PONDING OF WATER SHALL NOT OCCUR ON THE LOWER LANDING.
8. WINGS SHALL HAVE A MAXIMUM SLOPE OF 10H:1V. IF UPPER LANDING HAS A DEPTH LESS THAN 4'-0", THE MAXIMUM SLOPE FOR THE WINGS SHALL BE 12H:1V. WINGS SHALL HAVE A BRUSHED FINISH. PARALLEL TO THE CURB. THE CONCRETE WALK THICKENED EDGE ALONG THE CURB SHALL CONTINUE THROUGH EACH WING.
9. POLES, HYDRANTS AND OTHER ABOVE GROUND OBSTRUCTIONS SHALL HAVE A MINIMUM LATERAL CLEARANCE OF 1'-0" FROM THE UPPER LANDING AND RAMP SURFACE.
10. ALL CHANGES IN LEVEL ACROSS JOINTS SHALL BE FLUSH. ANY DIFFERENCE IN ELEVATION OF  $\frac{3}{16}$  INCH OR GREATER SHALL BE REPAIRED OR REPLACED.
11. ALL SLOPE GRADES SHALL BE MEASURED OFF THE HORIZON-LINE. IF EXISTING SITE CONDITIONS CONFLICT WITH OBTAINING GRADES SHOWN, THE DESIGNER / CONTRACTOR SHALL MAKE MINIMUM ADJUSTMENTS TO THE GRADES SHOWN TO MEET EXISTING SITE CONDITIONS; ADJUSTMENTS ARE SUBJECT TO ENGINEER APPROVAL.

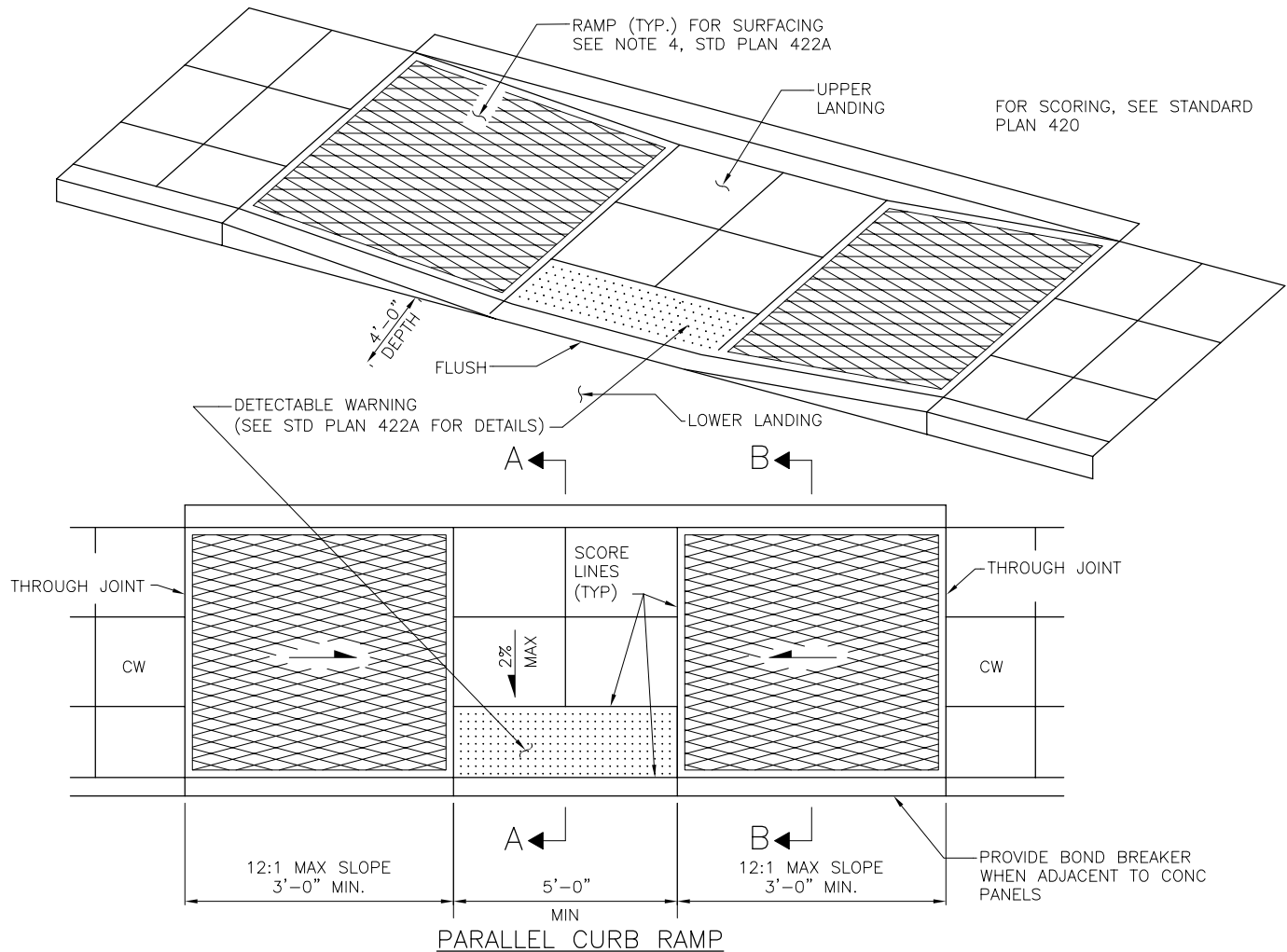
REF STD SPEC SEC 8-14



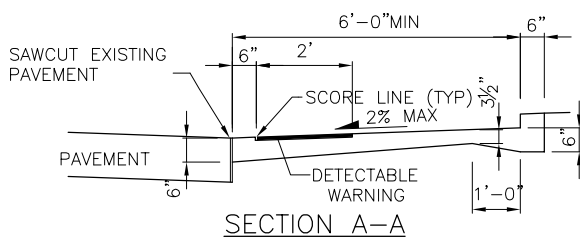
City of Seattle

NOT TO SCALE

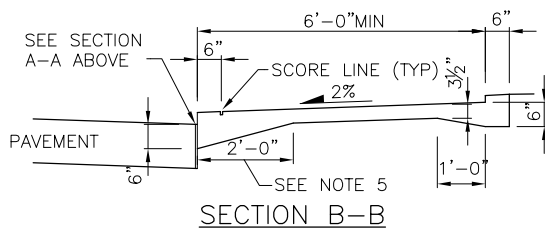
CURB RAMP DETAILS



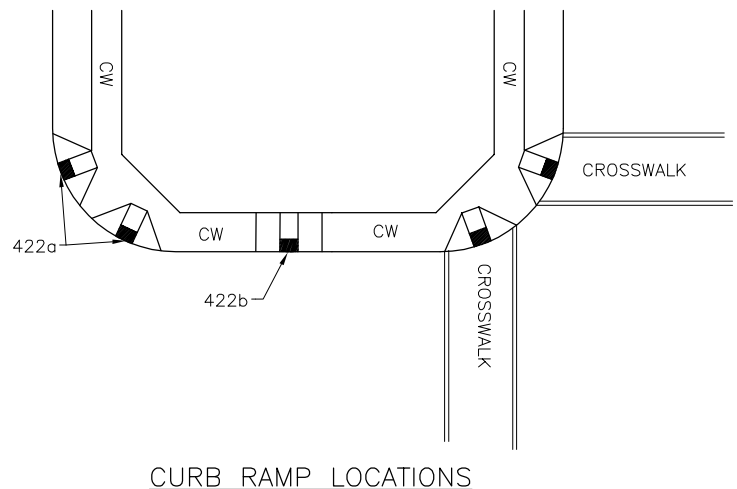
USE PARALLEL CURB RAMPS ONLY WHEN SHOWN IN DRAWINGS OR WITH APPROVAL OF ENGINEER.  
PARALLEL CURB RAMPS MAY ALSO BE USED ON CURVES; ALL REQUIREMENTS SHALL APPLY.



CURB MONOLITHIC WITH RAMP. NEW PAVEMENT BLOCKED OUT FULL DEPTH. EXISTING PAVEMENT REMOVED AT FACE OF CURB



SEE STD PLAN NO 422a FOR NOTES



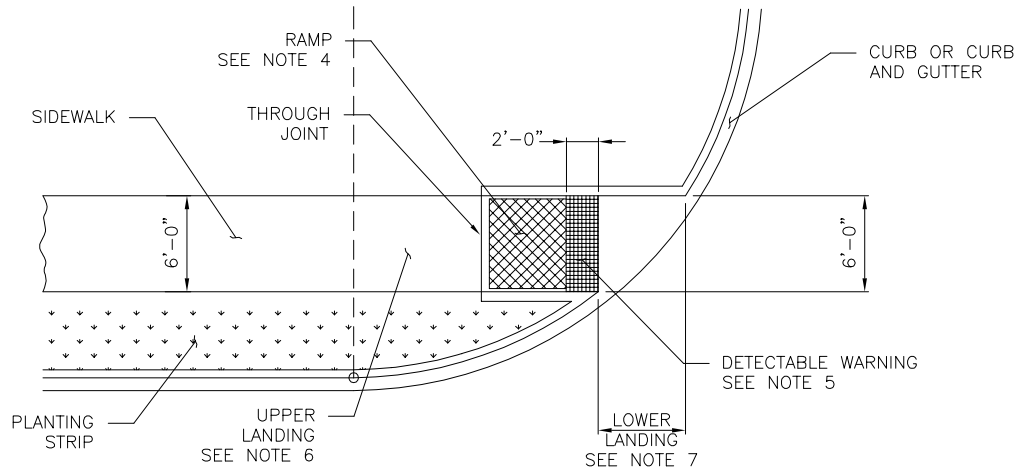
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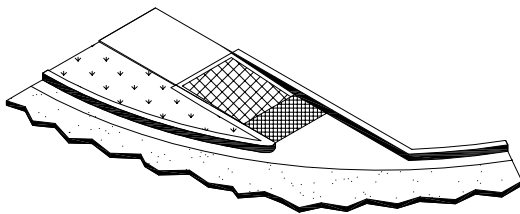
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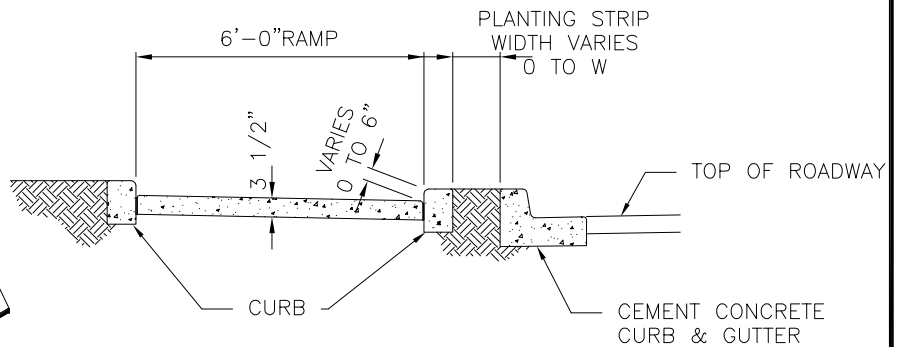
CURB RAMP DETAILS



**DIRECTIONAL CURB RAMP  
WITH PLANTING STRIP**  
USE WITH SDOT APPROVAL ONLY

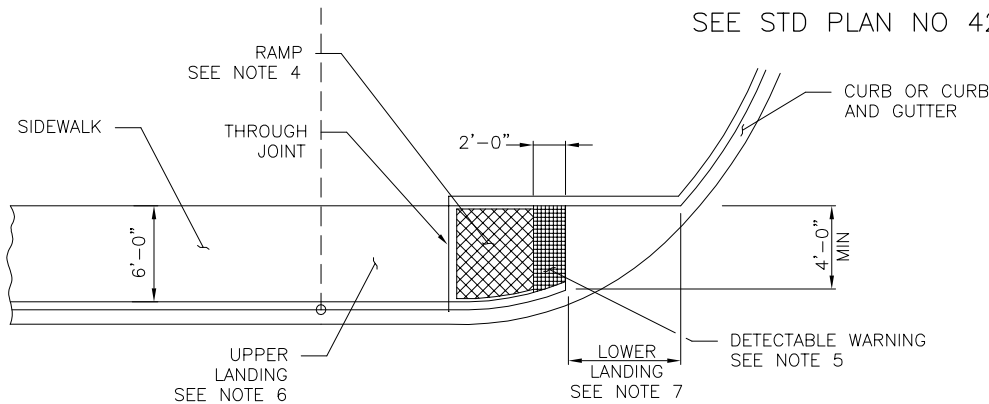


ISOMETRIC VIEW

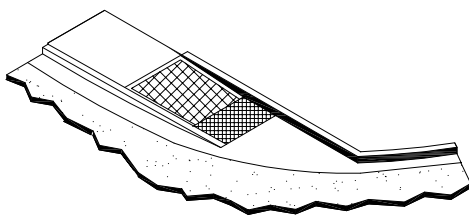


SECTION C

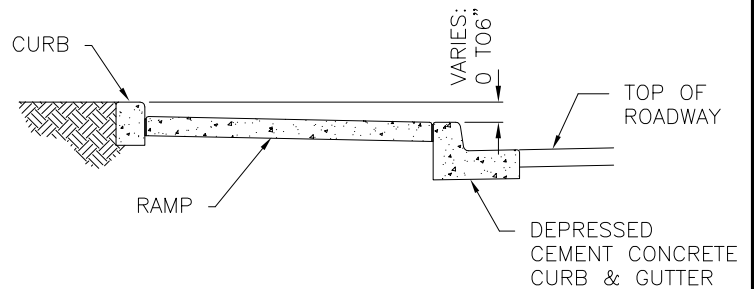
SEE STD PLAN NO 422a FOR NOTES



**DIRECTIONAL CURB RAMP**  
USE WITH SDOT APPROVAL ONLY



ISOMETRIC VIEW



SECTION C

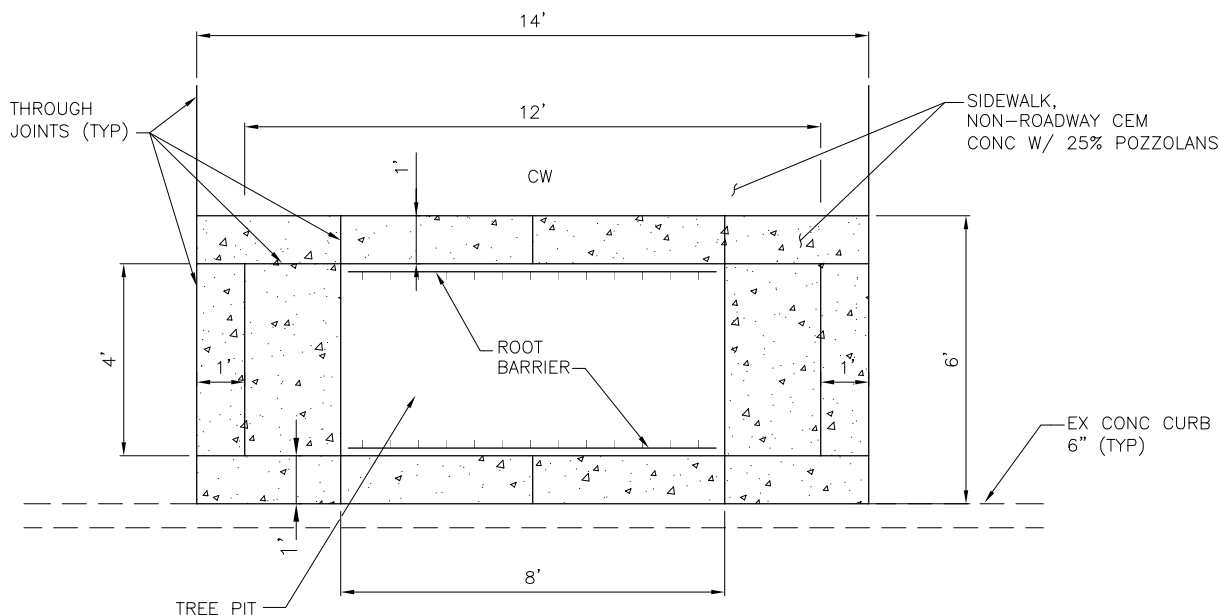
REF STD SPEC SEC 8-14



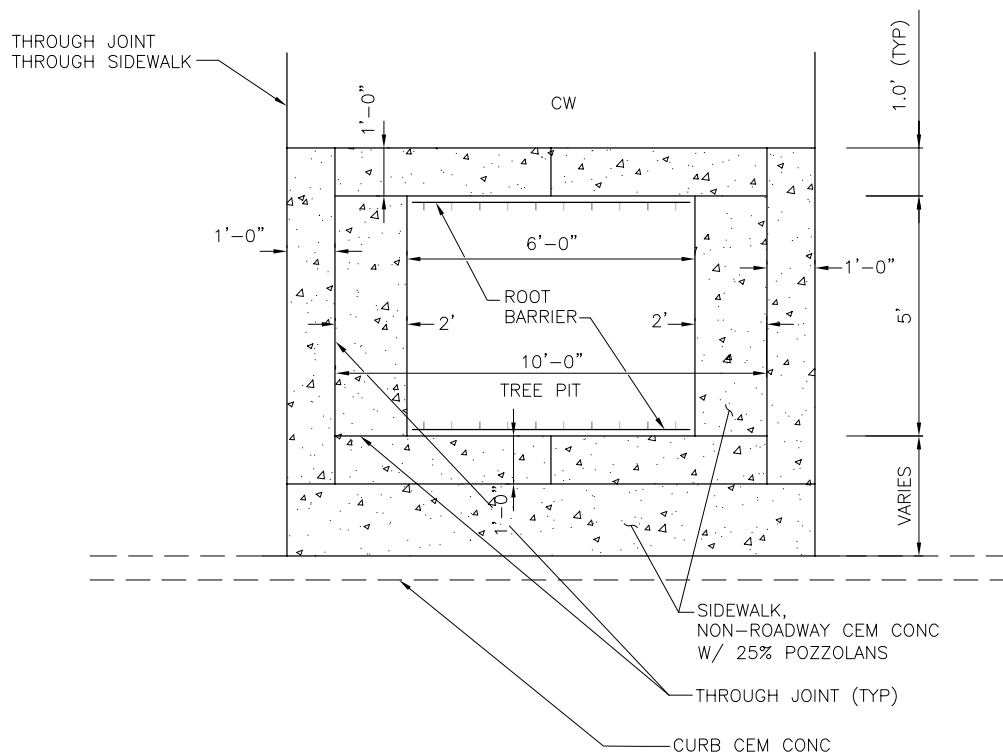
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**DIRECTIONAL CURB RAMP**

TYPE ANOTE

1. SEE STD PLAN 420 FOR CW SCORING DETAILS.
2. INSTALL ROOT BARRIER PER STANDARD PLAN NO. 100A.

TYPE B

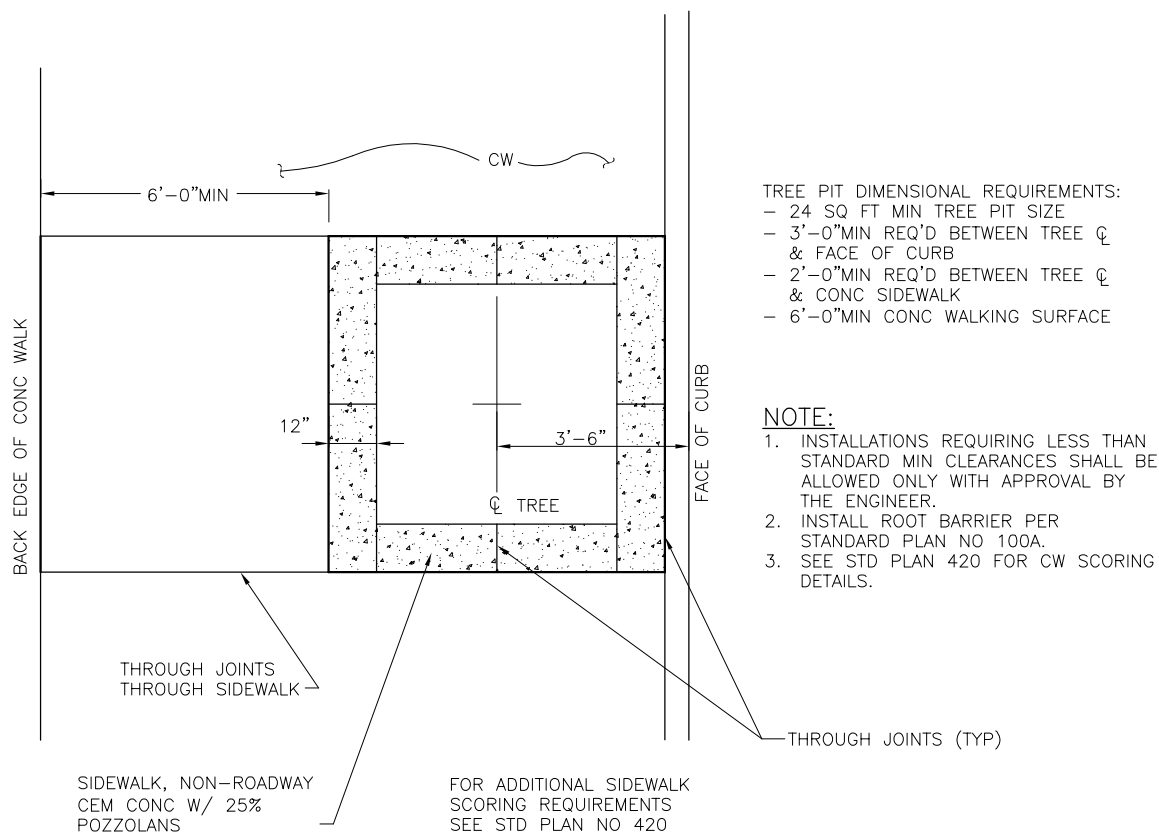
REF STD SPEC SEC 8-02 &amp; 8-14



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EXPANDABLE TREE PIT DETAIL

TYPE C

REF STD SPEC SEC 8-02 &amp; 8-14

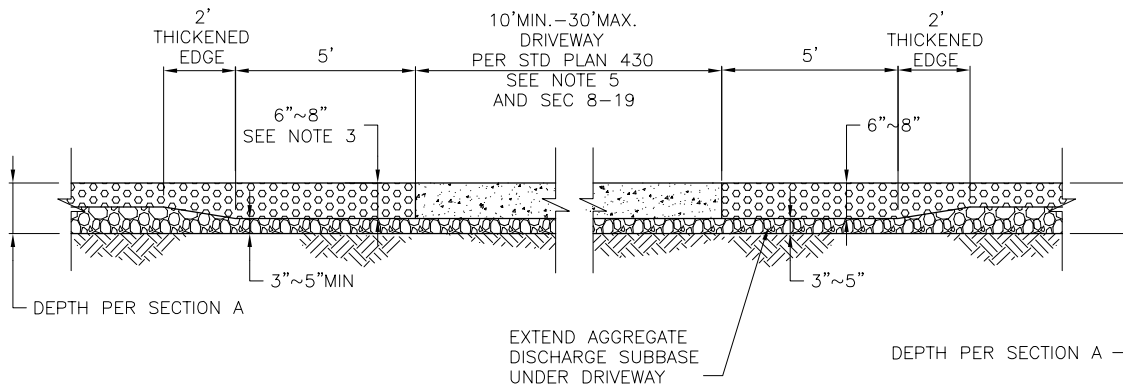


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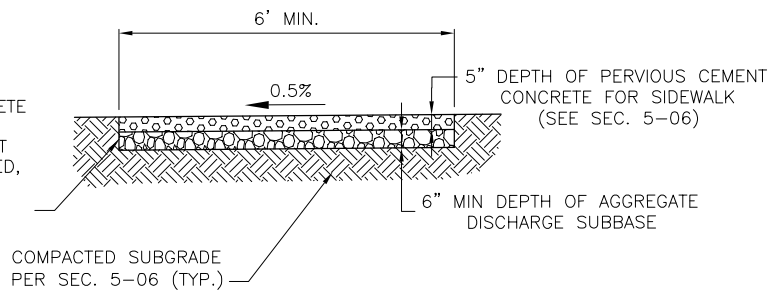
TREE PIT DETAIL





PERVIOUS CONC CEM SIDEWALK DEPTH  
TRANSITION AT DRIVEWAYS PROFILE VIEW

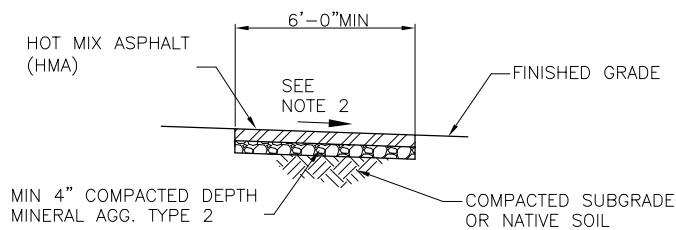
APPLY SEPARATION GEOTEXTILE SEC. 9-37, ON BOTTOM AND SIDES WHEN REQUIRED BY DESIGN. EXTEND GEOTEXTILE ABOVE PERVIOUS CONCRETE FOR SIDEWALK PAVEMENT. AFTER PAVEMENT HAS CURED AND ADJACENT FINISHED GRADE HAS BEEN STABILIZED, CUT SEPARATION GEOTEXTILE AT FINISHED GRADE (TYP.)



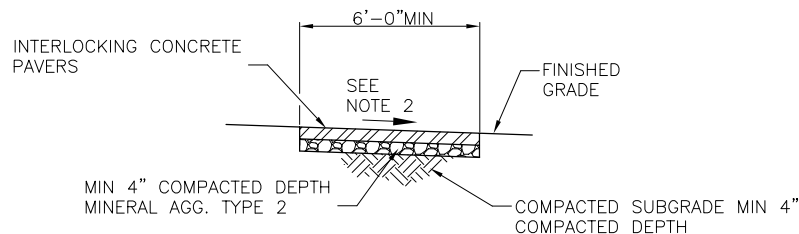
PERVIOUS CONC SECTION A

NOTES:

1. DEPTHS SHOWN FOR PAVEMENT SECTIONS ARE COMPACTED DEPTH.
2. SIDEWALK DEPTH AT DRIVEWAY TO MATCH DRIVEWAY PAVEMENT DEPTH.
3. DEPTH OF POROUS CEMENT CONCRETE FOR DRIVEWAYS SHALL BE 8" MIN.
4. 5% MAX. PERVIOUS CEMENT CONCRETE PROFILE GRADE.



HOT MIX ASPHALT PAVEMENT SIDEWALK SECTION



CONCRETE PAVER SIDEWALK SECTION

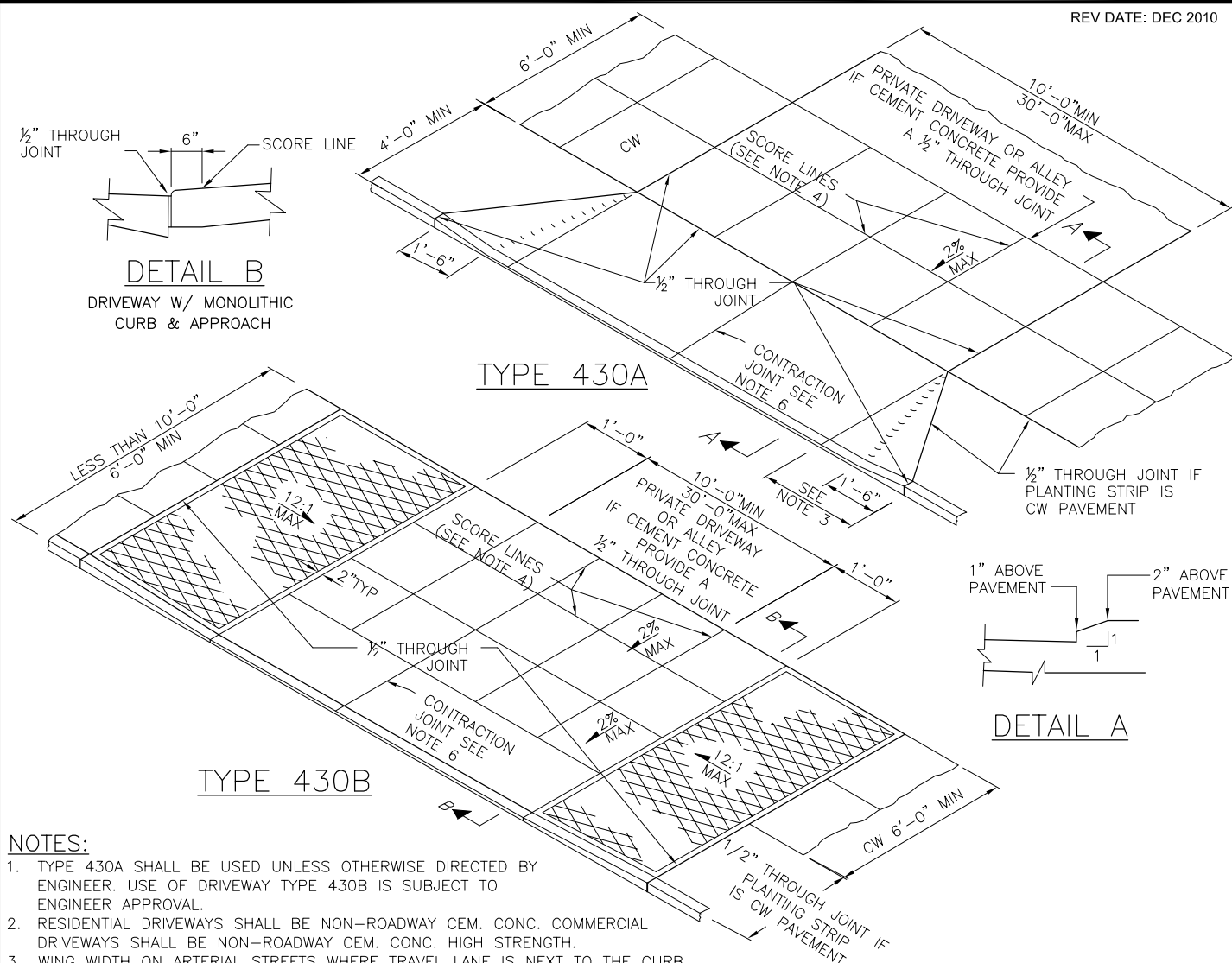
REF STD SPEC SEC 5-04, 5-06



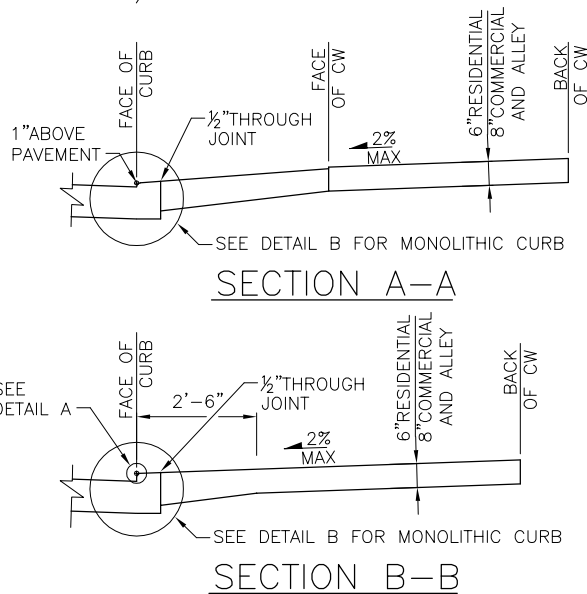
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ALTERNATIVE WALKWAYS

**NOTES:**

1. TYPE 430A SHALL BE USED UNLESS OTHERWISE DIRECTED BY ENGINEER. USE OF DRIVEWAY TYPE 430B IS SUBJECT TO ENGINEER APPROVAL.
2. RESIDENTIAL DRIVEWAYS SHALL BE NON-ROADWAY CEM. CONC. COMMERCIAL DRIVEWAYS SHALL BE NON-ROADWAY CEM. CONC. HIGH STRENGTH.
3. WING WIDTH ON ARTERIAL STREETS WHERE TRAVEL LANE IS NEXT TO THE CURB SHALL BE 5'-0". OTHERWISE, WING WIDTH SHALL BE 2'-0".
4. "V" GROOVE SCORING SHALL MATCH PATTERN IN ADJACENT EXISTING SIDEWALK. IN BUSINESS DISTRICT, USE 2' SQUARE SCORING PATTERN. WHERE THERE IS NO ADJACENT EXISTING SIDEWALK, USE 5'-0" SCORING SHOWN IN TYPICAL SIDEWALK DETAIL STANDARD PLAN 420.
5. FOR CONCRETE DRIVEWAY CONSTRUCTED WITH CONCRETE SIDEWALK, SEE STANDARD PLAN 431.
6. CONCRETE DRIVEWAYS WITH A WIDTH GREATER THAN 15'-0" SHALL HAVE A  $\frac{3}{8}$ " TRANSVERSE CONTRACTION JOINT NEAR THE CENTERLINE OF DRIVEWAY. SEE DETAIL SECTION C-C STANDARD PLAN 420.
7. FOR TYPE 430A SLOPE IN THE 6'-0" MINIMUM WIDE AREA CONNECTING TO CW ON EACH SIDE OF THE DRIVEWAY SHALL BE MAXIMUM 2% AND MINIMUM 0.5%. FOR TYPE 430B, SLOPE OF THE DRIVEWAY BETWEEN THE TWO RAMP SECTIONS SHALL BE MAXIMUM 2% AND MINIMUM 0.5%. DRIVEWAY ON THE PRIVATE SIDE OF THE CW MAY BE SLOPED AS NEEDED TO MATCH EXISTING SITE CONDITIONS.
8. RAMP SURFACE FOR DRIVEWAY 430B SHALL HAVE MAXIMUM SLOPE 12H:1V AND HAVE A TEXTURED SURFACE OBTAINED WITH A FLATTENED EXPANDED METAL  $\frac{3}{4}$ "-9-11 MESH PRESSED INTO THE STILL FRESH CONCRETE. LONG AXIS OF THE DIAMOND SHALL BE PARALLEL TO THE CURB.
9. ALL CHANGES IN LEVEL ACROSS JOINTS SHALL BE FLUSH WITH A MAXIMUM DIFFERENCE IN ELEVATION OF  $\frac{3}{16}$  INCH.
10. ALL SLOPE GRADES SHALL BE MEASURED OFF THE HORIZON-LINE. IF EXISTING SITE CONDITIONS CONFLICT WITH OBTAINING GRADES SHOWN, THE CONTRACTOR SHALL MAKE MINIMUM ADJUSTMENTS TO THE GRADES TO ACCOMMODATE EXISTING SITE CONDITIONS, ADJUSTMENTS ARE SUBJECT TO ENGINEER APPROVAL.



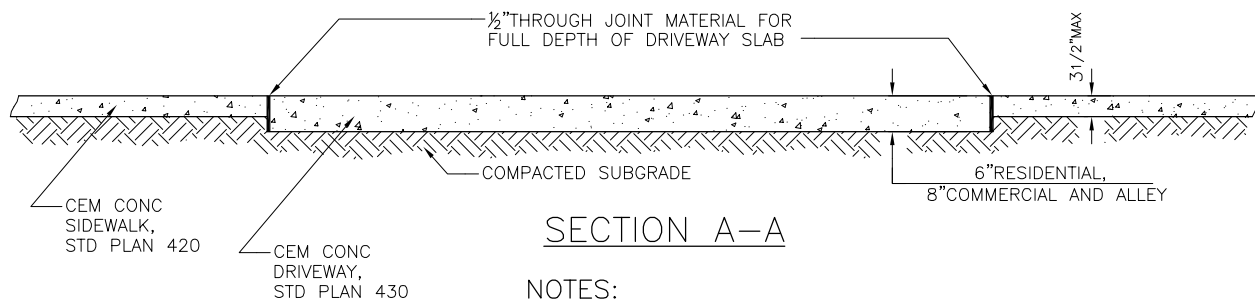
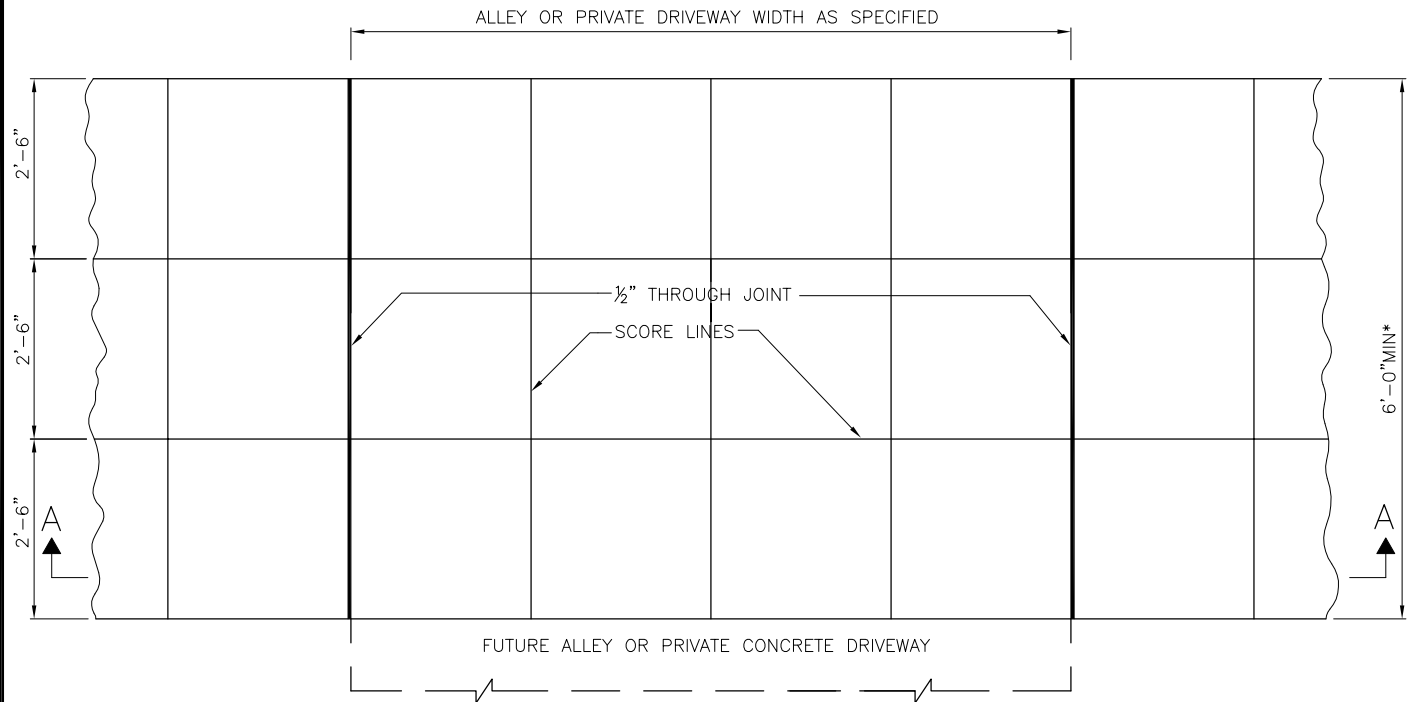
REF STD SPEC SEC 8-19



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TYPE 430 DRIVEWAY

**NOTES:**

1. DRIVEWAY WIDTH GREATER THAN 15'-0" AND LESS THAN OR EQUAL TO 30' SHALL HAVE TRANSVERSE CONSTRUCTION JOINTS AT ITS CENTER.
2. DRIVEWAY GREATER THAN 30'-0" REQUIRES SDOT APPROVAL AND SHALL HAVE TRANSVERSE CONTRACTION JOINTS EVENLY PLACED SO THE DISTANCE BETWEEN CONTRACTION JOINTS, OR BETWEEN THE EDGE THROUGH JOINTS AND CONTRACTION JOINTS IS NOT GREATER THAN 15'-0".

\* UNLESS OTHERWISE APPROVED BY SDOT.

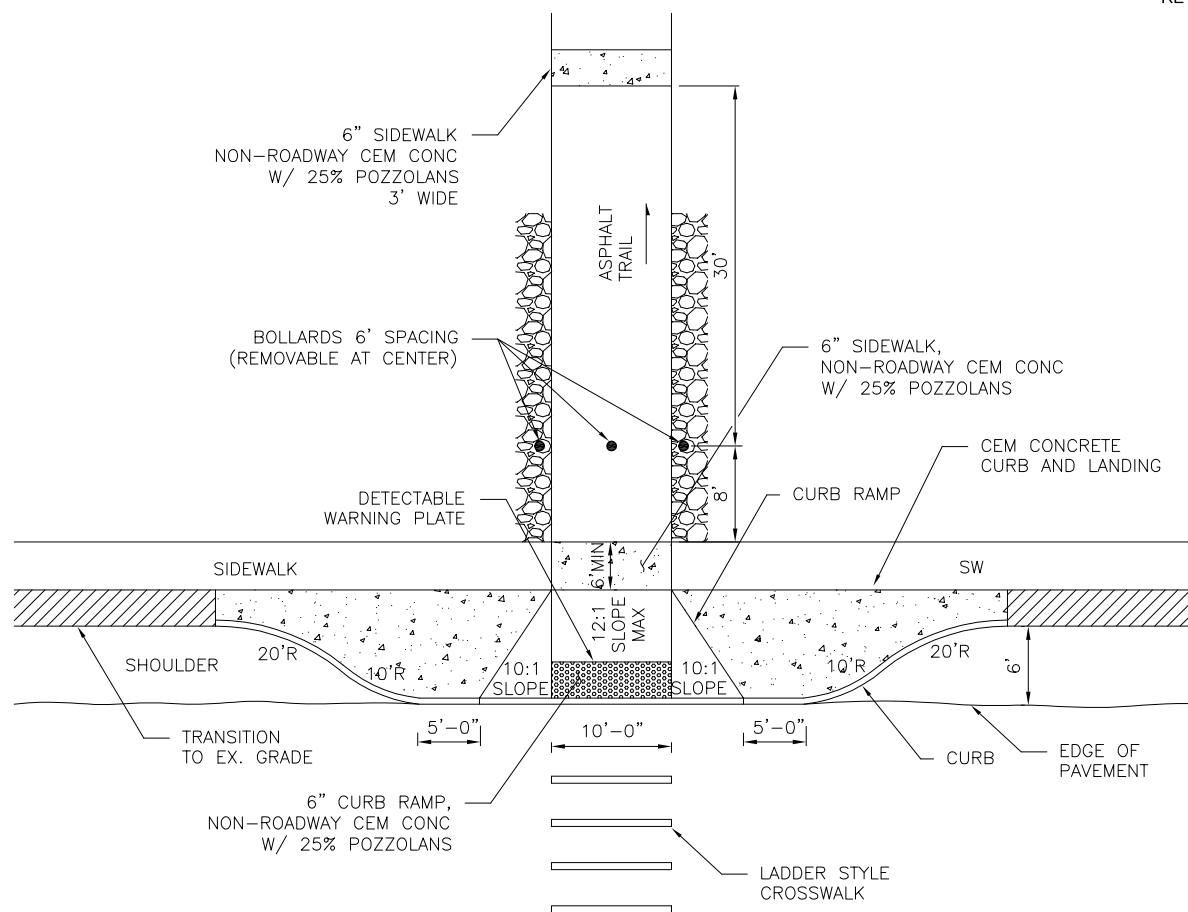
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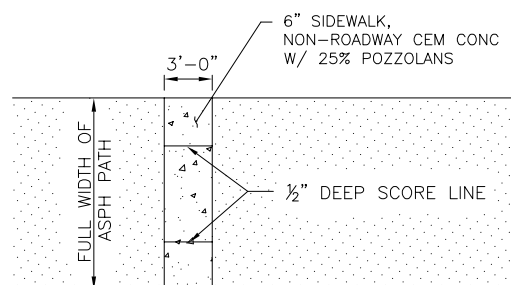
**CEMENT CONCRETE DRIVEWAY  
PLACED WITH CEMENT  
CONCRETE SIDEWALK**



### MULTI PURPOSE TRAIL @ ARTERIAL STREET W/BULB-OUT (TYP)

#### NOTES:

1. FOR CURB RAMP AND DETECTABLE WARNING DETAILS SEE STANDARD PLAN 422.
2. FOR CROSSWALK DETAILS SEE STANDARD PLAN 712.
3. FOR BOLLARD DETAIL SEE STANDARD PLAN 463.
4. ASPHALT TRAIL CROSS SLOPE MINIMUM 1%, MAXIMUM 2%.
5. CEMENT CONCRETE WARNING PAD THICKNESS TO MATCH ASPHALT THICKNESS OR MINIMUM 6" THICK WHICHEVER IS GREATER.
6. CRUSHED ROCK ON EDGE OF TRAIL AS NEEDED TO DISBURSE DRAINAGE FLOW.
7. ALL CHANGES IN LEVEL ACROSS JOINTS SHALL BE FLUSH WITH A MAXIMUM DIFFERENCE IN ELEVATION OF  $\frac{3}{16}$  INCH.
8. ALL SLOPE GRADES SHALL BE MEASURED OFF THE HORIZON-LINE. IF EXISTING SITE CONDITIONS CONFLICT WITH OBTAINING GRADES SHOWN, THE CONTRACTOR SHALL MAKE MINIMUM ADJUSTMENTS TO THE GRADES TO ACCOMMODATE EXISTING SITE CONDITIONS, ADJUSTMENTS ARE SUBJECT TO APPROVAL BY THE ENGINEER.
9. ALL CEMENT CONCRETE WARNING PADS SHALL BE BRUSHED FINISHED AND "V" GROOVED TO MATCH PATTERN IN ADJACENT OR NEARBY SIDEWALKS.



### CEM CONC WARNING PAD

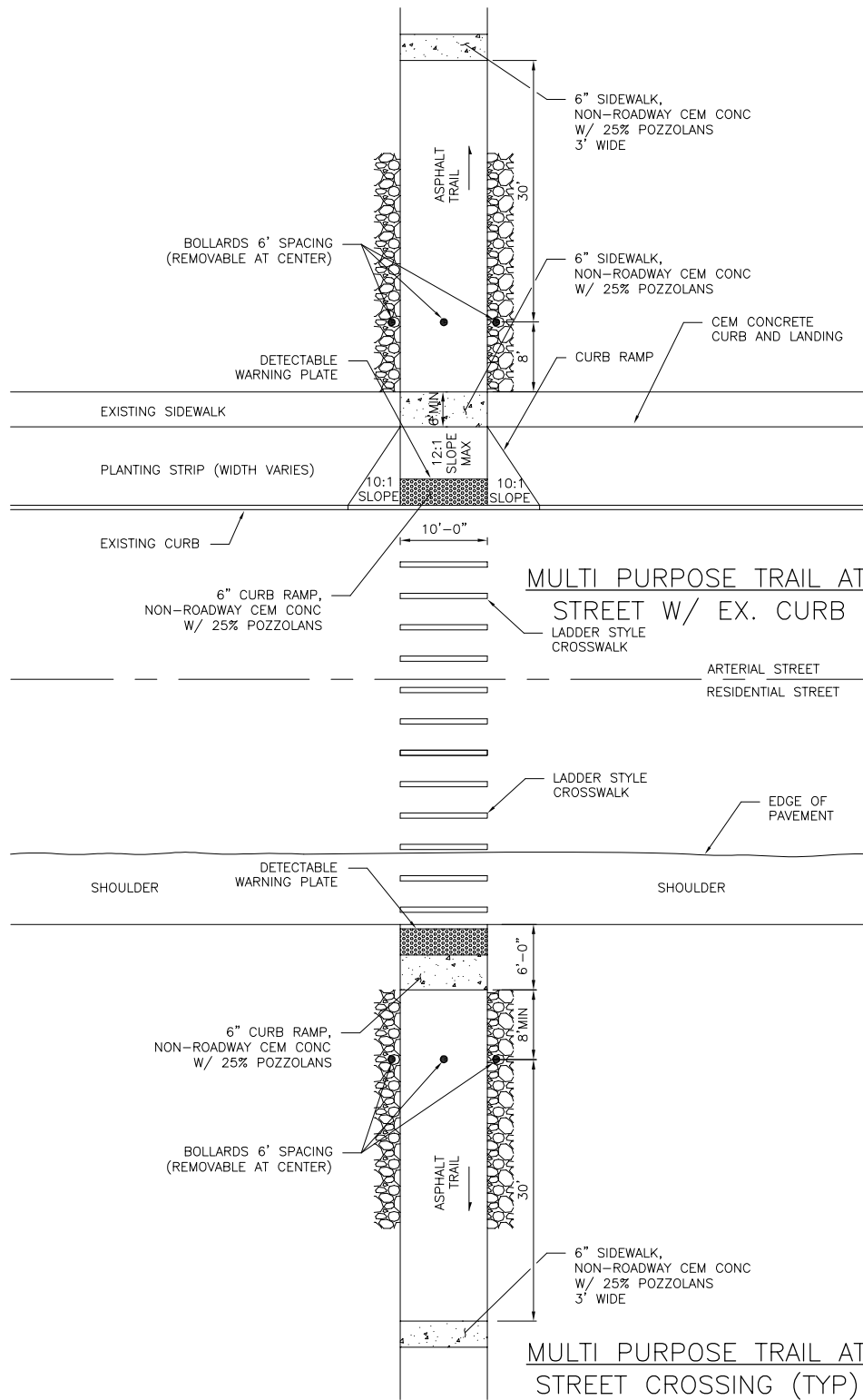
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MULTI PURPOSE TRAIL  
AT STREET CROSSING



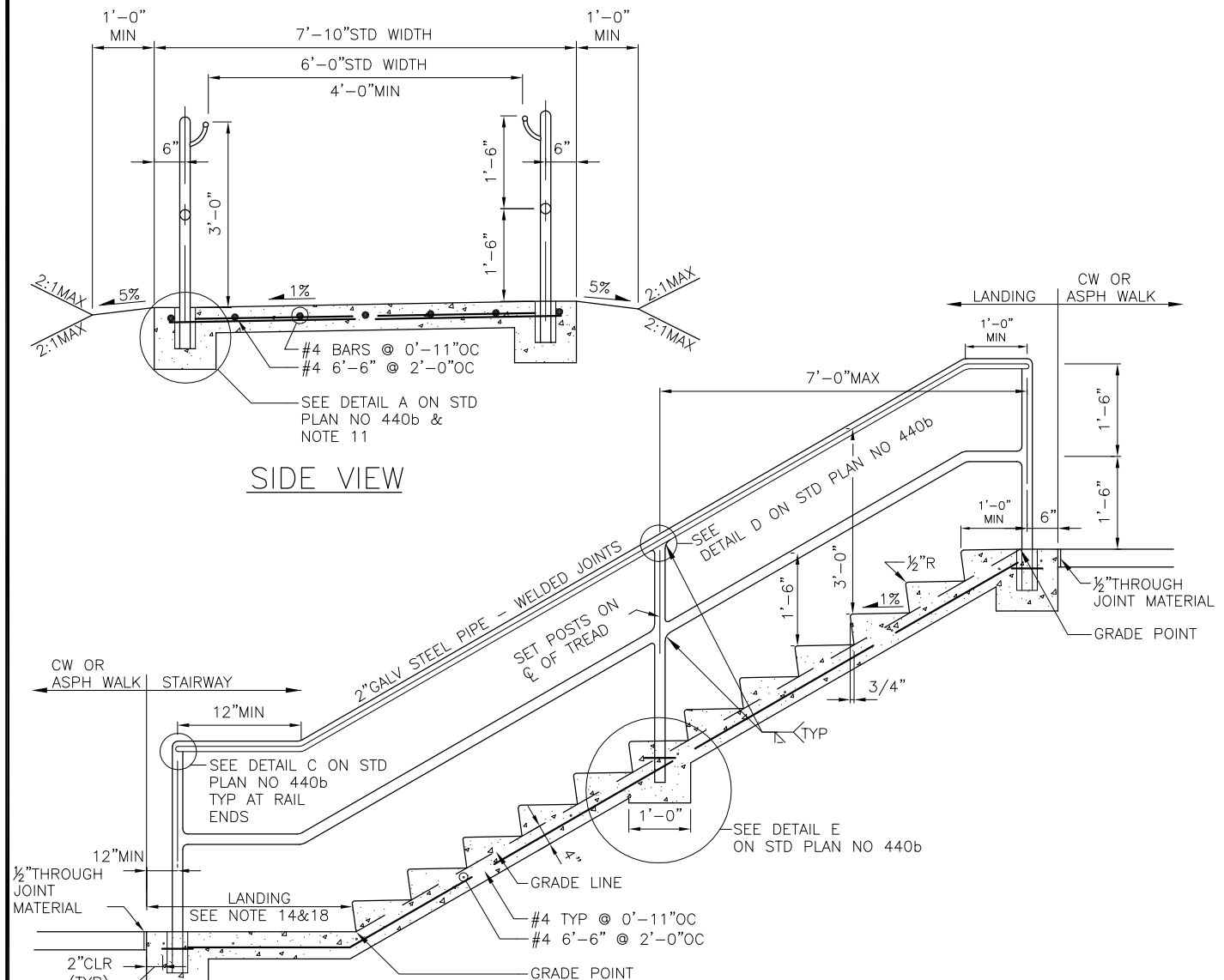
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**MULTI-PURPOSE TRAIL  
AT STREET CROSSING**

**NOTES:**

1. FLIGHTS OF STAIRS SHALL HAVE MAX VERTICAL RISE OF 12' BEFORE A LANDING.
2. AVOID FEWER THAN 2 RISERS PER FLIGHT.
3. STEPS IN FLIGHT MUST HAVE UNIFORM TREAD RUNS AND UNIFORM RISER HEIGHTS WITH TOLERANCE OF  $\pm 3/8"$ .
4. TREADS SHALL BE 11" MIN, 12" MAX. RISERS SHALL BE 5" MIN, 7" MAX.
5. LANDINGS BETWEEN FLIGHTS OF RISERS MUST HAVE SAME WIDTH AS STEPS AND A MIN LENGTH OF 4'-0".
6. FLIGHTS OF 2' OR MORE STEPS SHALL HAVE HANDRAILS ON BOTH SIDES.
7. HANDRAILS SHALL BE CONTINUOUS ACROSS LANDINGS BETWEEN FLIGHTS OF STEPS.
8. HANDRAILS SHALL BE GALVANIZED AFTER FABRICATION.
9. PIPE MATERIAL SHALL BE ASTM A53.
10. REINFORCING STEEL SHALL BE ASTM A615 GR 60.
11. FOR FORMAL DRAINAGE PICK-UP SEE DETAIL B ON STD PLAN NO. 440b (THIS IS OPTIONAL AND MUST BE CALLED OUT ON DRAWINGS).
12. PIPE DIAMETERS SHOWN ARE "NOMINAL" DIAMETERS AS GIVEN IN AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL.
13. CONCRETE CLASS CL3000.
14. LANDINGS SHALL BE 0.5% MIN FOR A MIN OF 4', ADJACENT SIDE WALK MAY BE PART OF LANDING IF SLOPE CRITERIA AND SETBACKS FROM HANDRAILS ARE MET.
15. TREAD SURFACE SHALL HAVE GROOVES AT THE NOSE FOR TRACTION.
16. IF LANDING IS ELEVATED, LANDING SHALL HAVE GUARDRAIL.
17. STAIRWAYS DEVIATING FROM STANDARD PLAN TO ACCOMMODATE BICYCLE FEATURES MAY BE USED UPON REVIEW.
18. BOTTOM LANDING DIMENSION FROM THE RAILING TO THE NOSE OF THE TREAD SHALL BE 2'-0" MIN + 1 TREAD WIDTH.

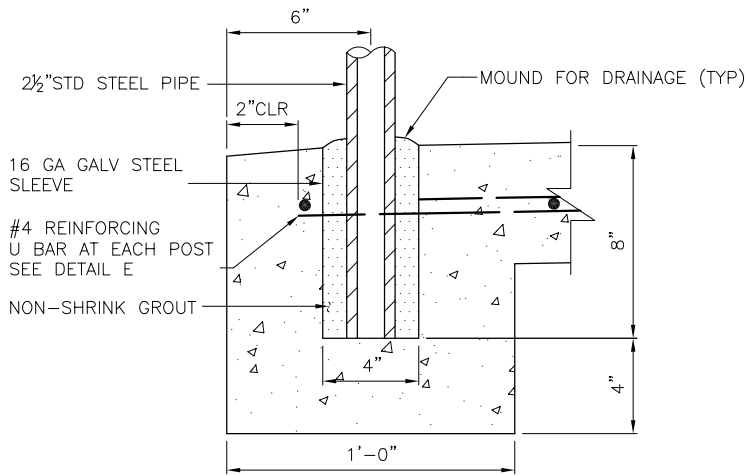
REF STD SPEC SEC 8-18



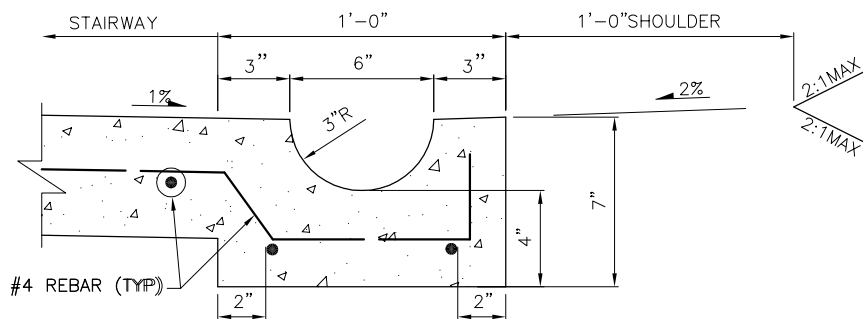
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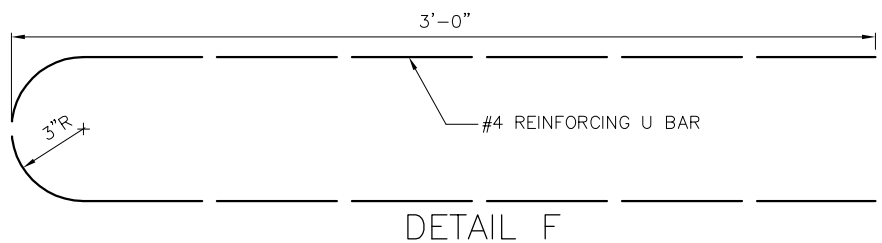
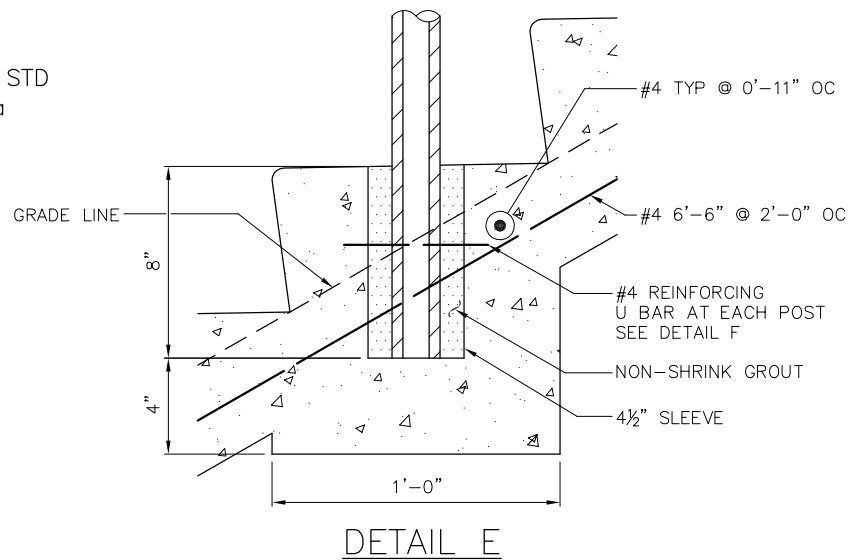
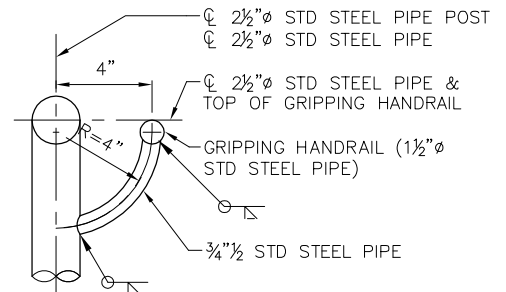
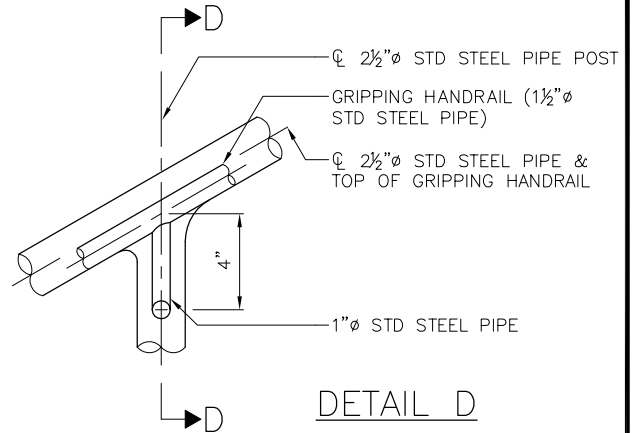
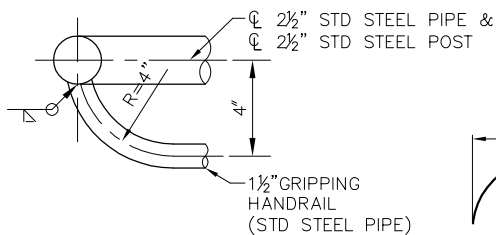
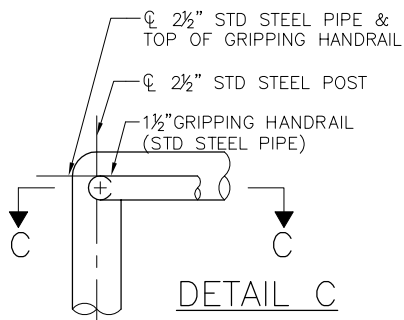
CEMENT CONCRETE  
STAIRWAY & HANDRAIL



DETAIL A



DETAIL B

SEE NOTE 11 ON STD  
PLAN NO 440a

REF STD SPEC SEC 8-18



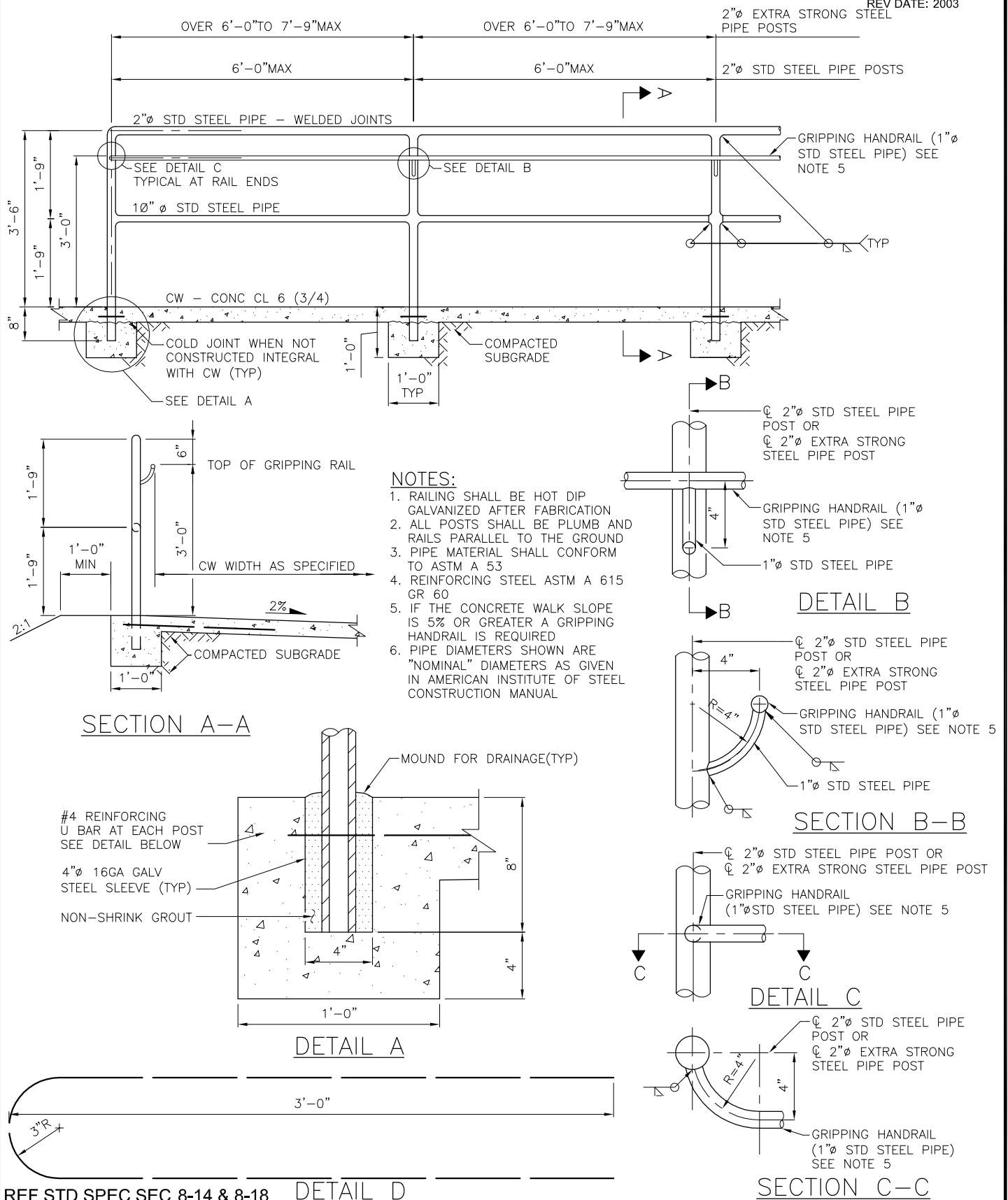
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CEMENT CONCRETE  
STAIRWAY & HANDRAIL



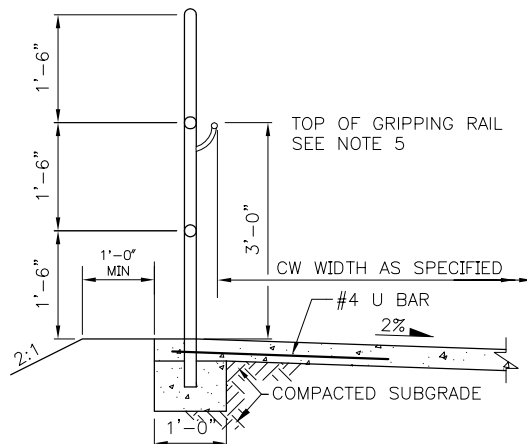
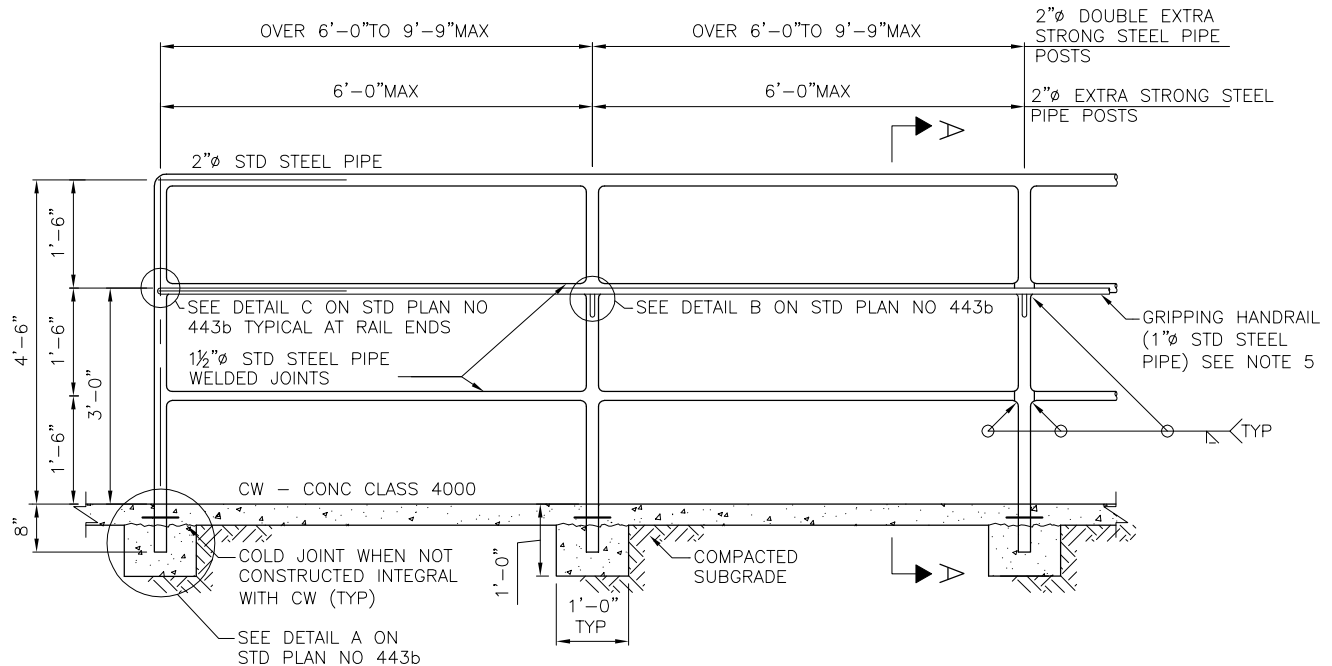




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STEEL PIPE HANDRAIL



SECTION A-A

## NOTES:

1. RAILING SHALL BE HOT DIP GALVANIZED AFTER FABRICATION
2. ALL POSTS SHALL BE PLUMB AND RAILS PARALLEL TO GRADE
3. PIPE MATERIAL SHALL CONFORM TO ASTM A53
4. REINFORCING STEEL ASTM A615 GR 60
5. IF THE CONCRETE WALK SLOPE IS 5% OR GREATER A GRIPPING HANDRAIL IS REQUIRED
6. PIPE DIAMETERS SHOWN ARE "NOMINAL" DIAMETERS AS GIVEN IN AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL

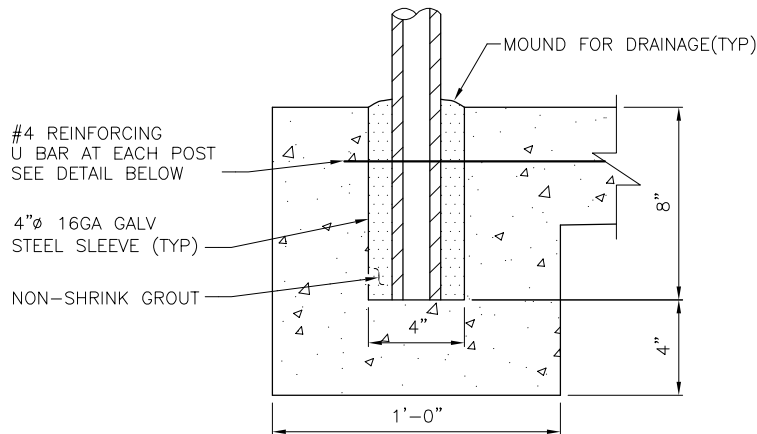
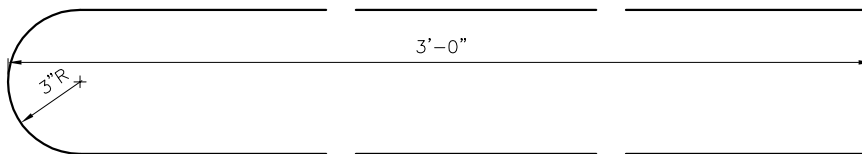
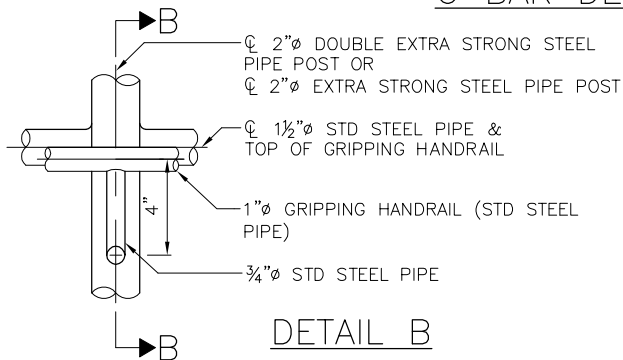
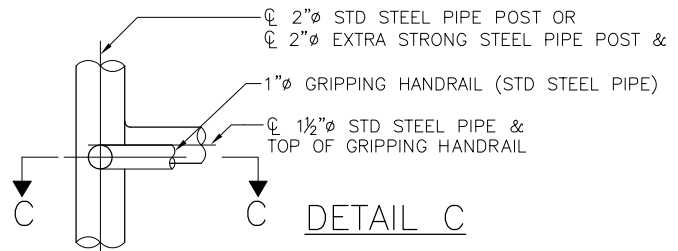
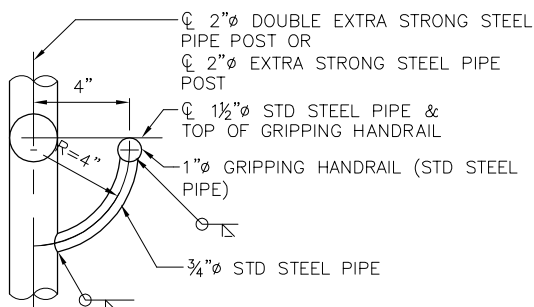
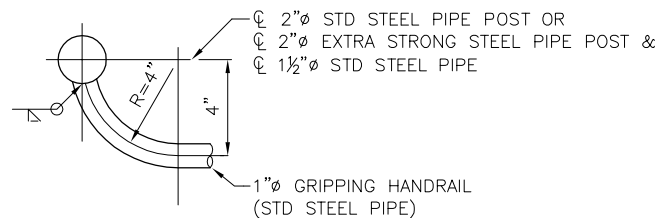
REF STD SPEC SEC 8-18



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STEEL PIPE RAILING  
FOR BIKE PATH

DETAIL AU BAR DETAILDETAIL BDETAIL CSECTION B-BSECTION C-C

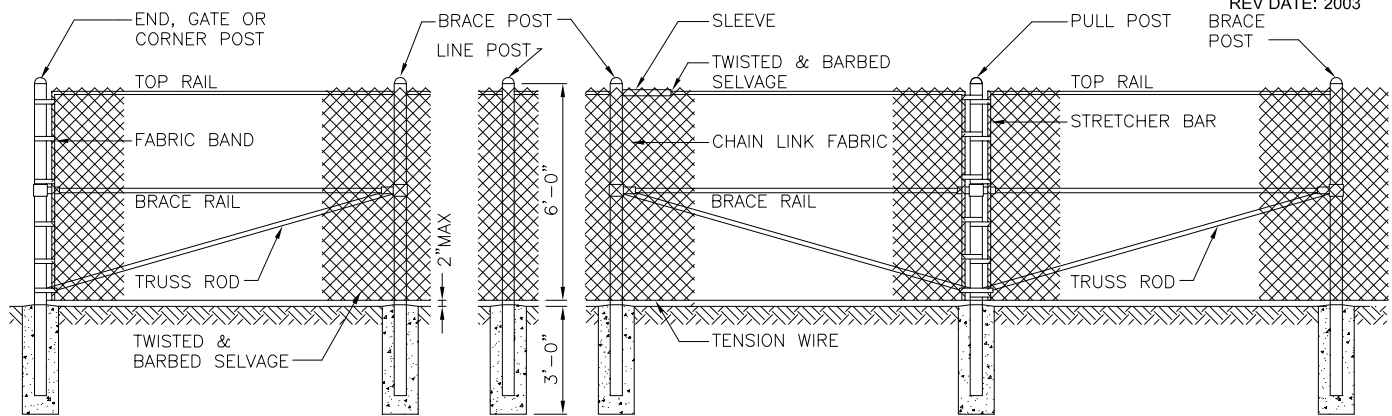
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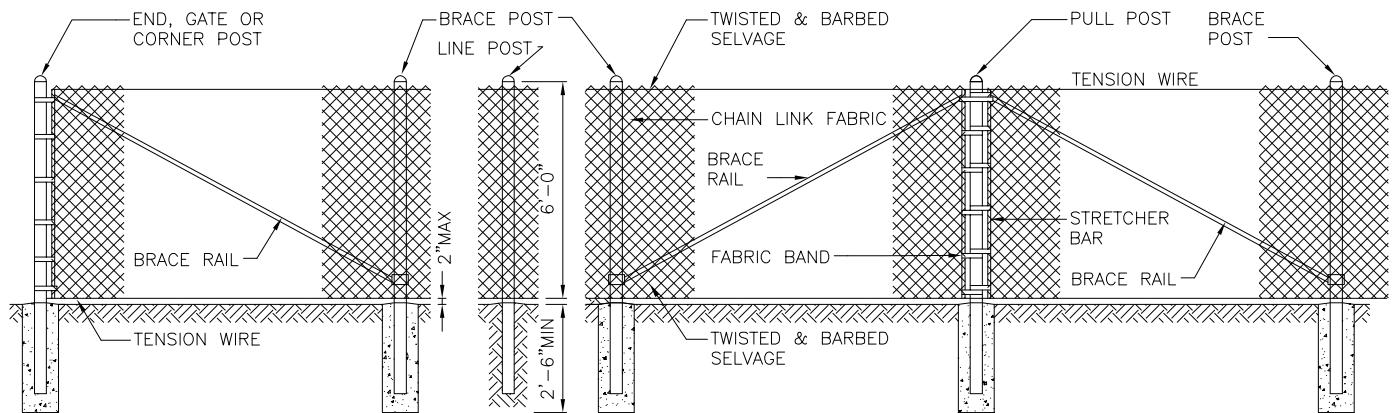
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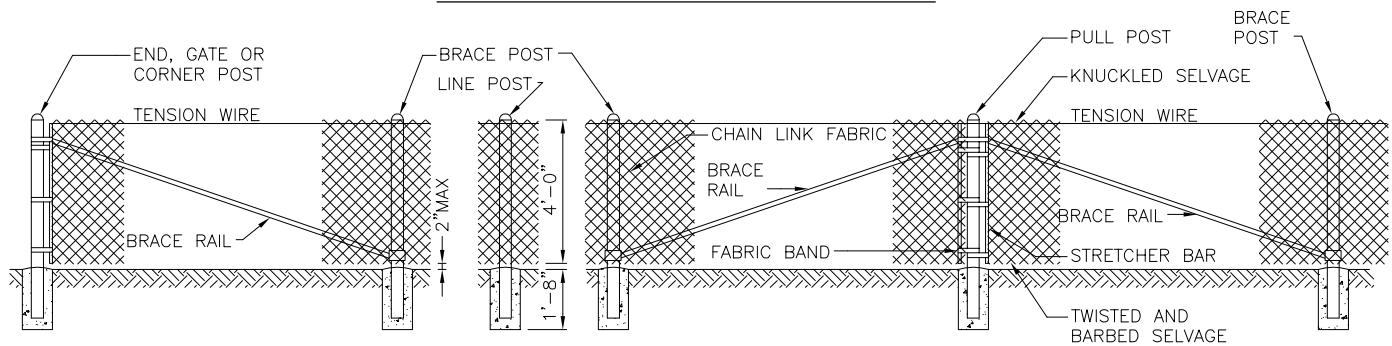
STEEL PIPE RAILING  
FOR BIKE PATH

REV DATE: 2003  
BRACE  
POST

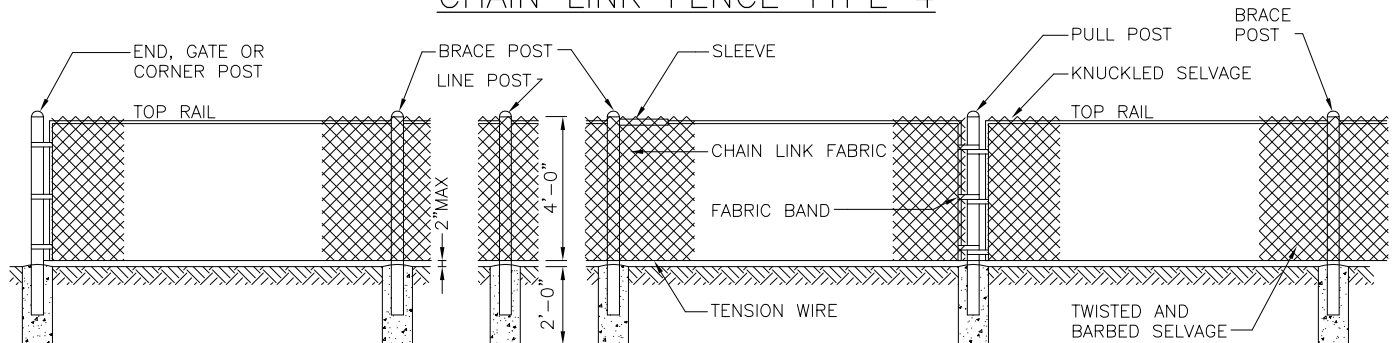
CHAIN LINK FENCE TYPE 1



CHAIN LINK FENCE TYPE 3



CHAIN LINK FENCE TYPE 4



CHAIN LINK FENCE TYPE 6

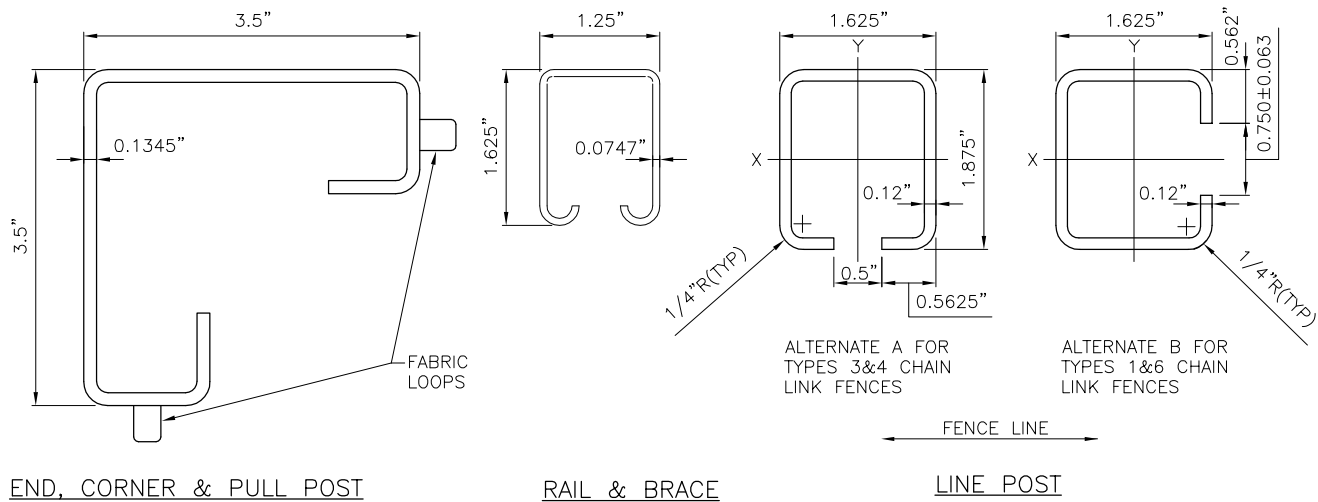
REF STD SPEC SEC 8-12



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CHAIN LINK FENCE



### ROLL FORMED SECTIONS

#### MEMBER

TYPE	BRACE RAIL & TOP RAIL						LINE & BRACE POST					
	ROUND		H-COLUMN		ROLL FORMED		ROUND		H-COLUMN		ROLL FORMED	
	ID PIPE INCHES	WEIGHT PER FT POUNDS	SIZE INCHES	WEIGHT PER FT POUNDS	SIZE INCHES	WEIGHT PER FT POUNDS	ID PIPE INCHES	WEIGHT PER FT POUNDS	SIZE INCHES	WEIGHT PER FT POUNDS	SIZE INCHES	WEIGHT PER FT POUNDS
1	1.25	2.27	1.25X1.62	1.35	1½X1¼	1.35	2	3.65	2¼	4.0		
3							1½	2.72	1⅞	2.72	1⅝X1⅞	2.34
4							1½	2.72	1⅞	2.72	1⅝X1⅞	2.34
6			1.25X1.62	1.35			2	3.65	2¼	4.0		

#### MEMBER

TYPE	BRACE RAIL & TOP RAIL				GATE POST ROUND		ALL POSTS
	ROUND		H-COLUMN				LENGTH
	ID PIPE INCHES	WEIGHT PER FT POUNDS	SIZE INCHES	WEIGHT PER FT POUNDS	SIZE INCHES	WEIGHT PER FT POUNDS	
1	2½	5.79	3½X3½	5.14	3½	9.1	8'—8"
3	2	3.65					8'—8"
4	2	3.65					5'—6"
6	2½	5.79					5'—6"

#### NOTES:

- ALL CONCRETE POST BASES SHALL BE 10" MINIMUM DIAMETER, CL3000
- POSTS SHALL BE SPACED AT 10'-0" MAXIMUM INTERVALS UNLESS OTHERWISE DIRECTED BY THE ENGINEER
- TOP OR BOTTOM TENSION WIRES SHALL BE PLACED WITHIN THE LIMITS OF THE FIRST FULL FABRIC WEAVE
- THE ILLUSTRATIVE DETAIL SHOWN HEREON SHALL NOT BE CONSTRUED AS LIMITING TO HARDWARE DESIGN OR POST SELECTION FOR ANY PARTICULAR FENCE TYPE
- CONCRETE OR GROUT AROUND POST AT GROUND LINE SHALL BE MOUNDED FOR DRAINAGE

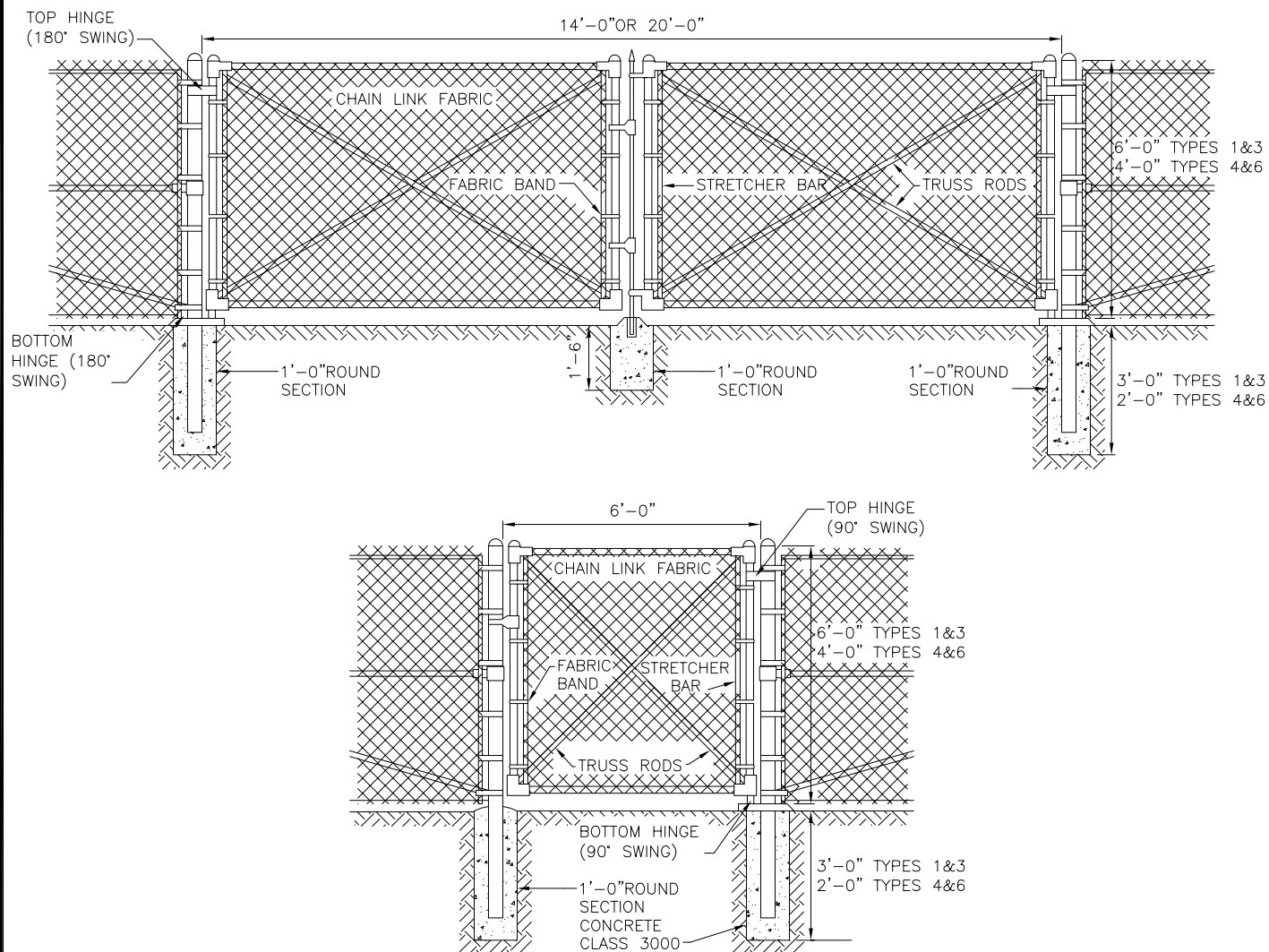
REF STD SPEC SEC 8-12



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CHAIN LINK FENCE

**NOTES:**

1. FENCE FABRIC SHALL BE SECURED TO GATE FRAMES WITH KNUCKLED SELVAGE ALONG TOP EDGE FOR TYPES 4&6 CHAIN LINK FENCE INSTALLATIONS
2. MINIMUM POST LENGTH:  
TYPES 1&3: 8'-8"  
TYPES 4&6: 5'-6"
3. CONCRETE OR GROUT AROUND POST AT GROUND LINE SHALL BE MOUNDED FOR DRAINAGE

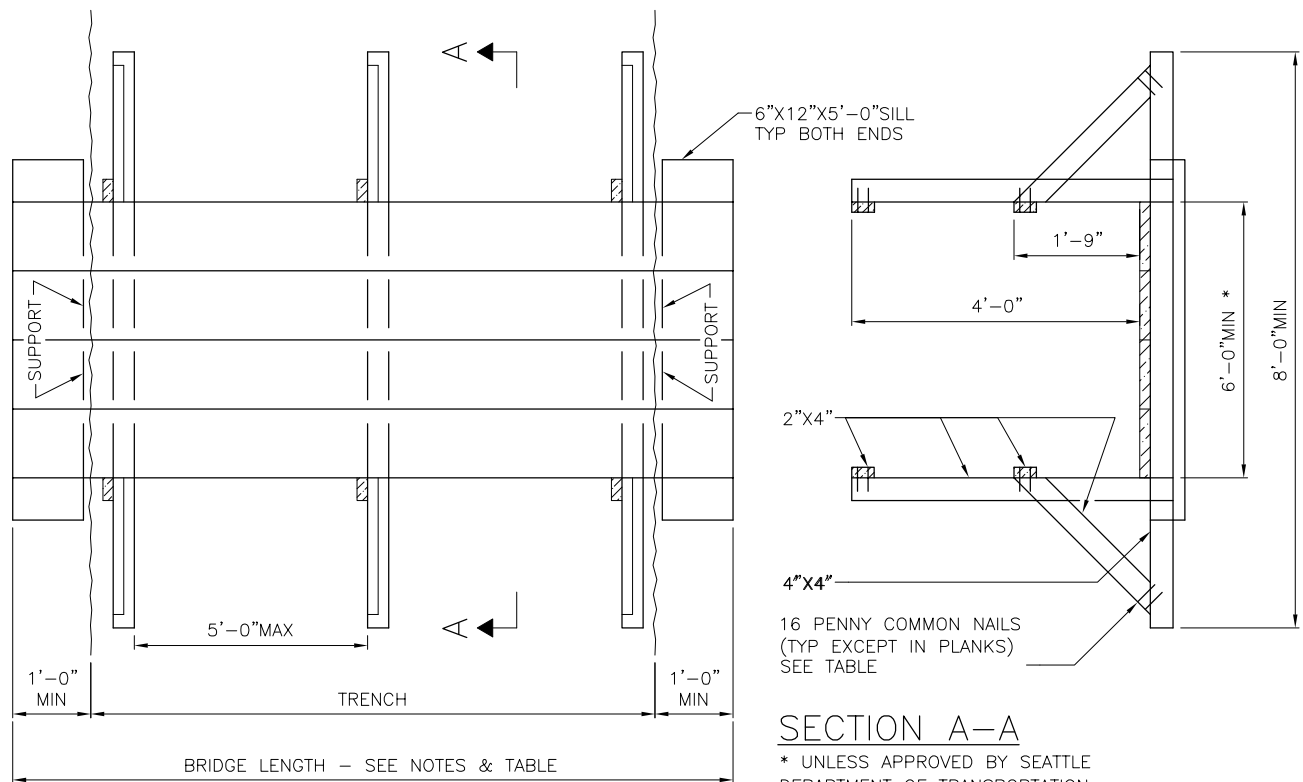
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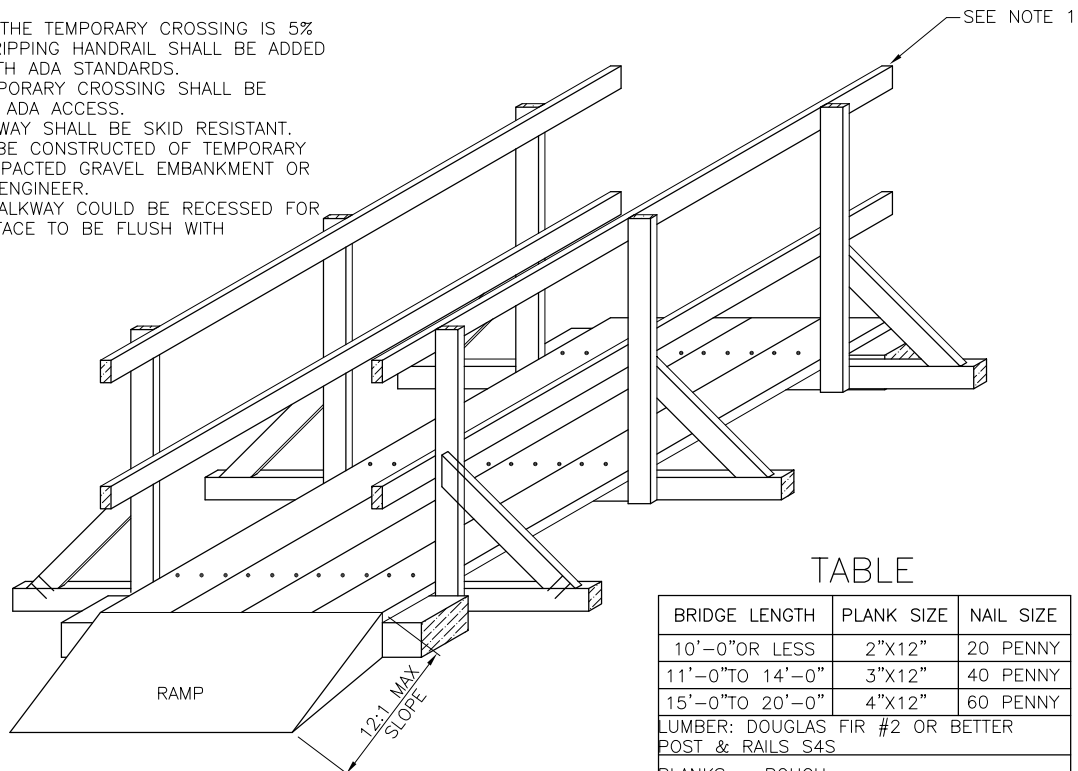
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CHAIN LINK GATES

**NOTE:**

1. IF THE SLOPE OF THE TEMPORARY CROSSING IS 5% OR GREATER, A GRIPPING HANDRAIL SHALL BE ADDED THAT COMPLIES WITH ADA STANDARDS.
2. ENDS OF THE TEMPORARY CROSSING SHALL BE SLOPED TO ALLOW ADA ACCESS.
3. SURFACE OF WALKWAY SHALL BE SKID RESISTANT.
4. THE RAMP SHALL BE CONSTRUCTED OF TEMPORARY PAVEMENT OR COMPACTED GRAVEL EMBANKMENT OR AS APPROVED BY ENGINEER.
5. THE TEMPORARY WALKWAY COULD BE RECESSED FOR THE WALKING SURFACE TO BE FLUSH WITH ADJOINING GRADE.



TABLE

BRIDGE LENGTH	PLANK SIZE	NAIL SIZE
10'-0" OR LESS	2"X12"	20 PENNY
11'-0" TO 14'-0"	3"X12"	40 PENNY
15'-0" TO 20'-0"	4"X12"	60 PENNY
LUMBER: DOUGLAS FIR #2 OR BETTER		
POST & RAILS S4S		
PLANKS - ROUGH		

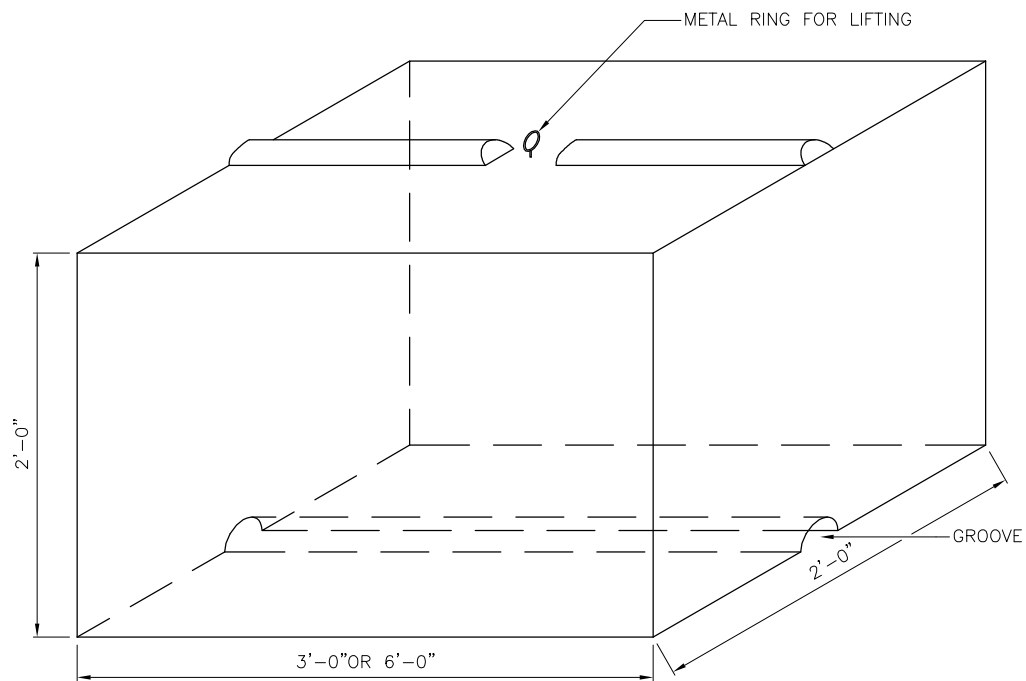
REF STD SPEC SEC 1-07.23



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**TEMPORARY PEDESTRIAN  
WALKWAY**



CONCRETE TONGUE & GROOVE BLOCK

REF STD SPEC SEC

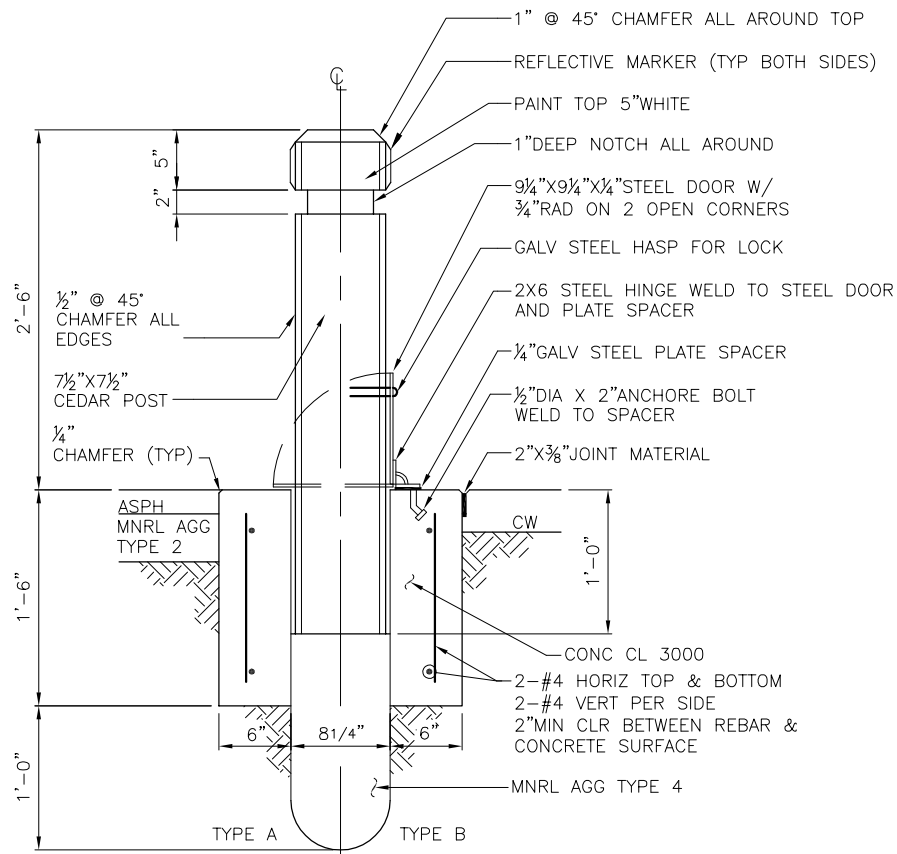
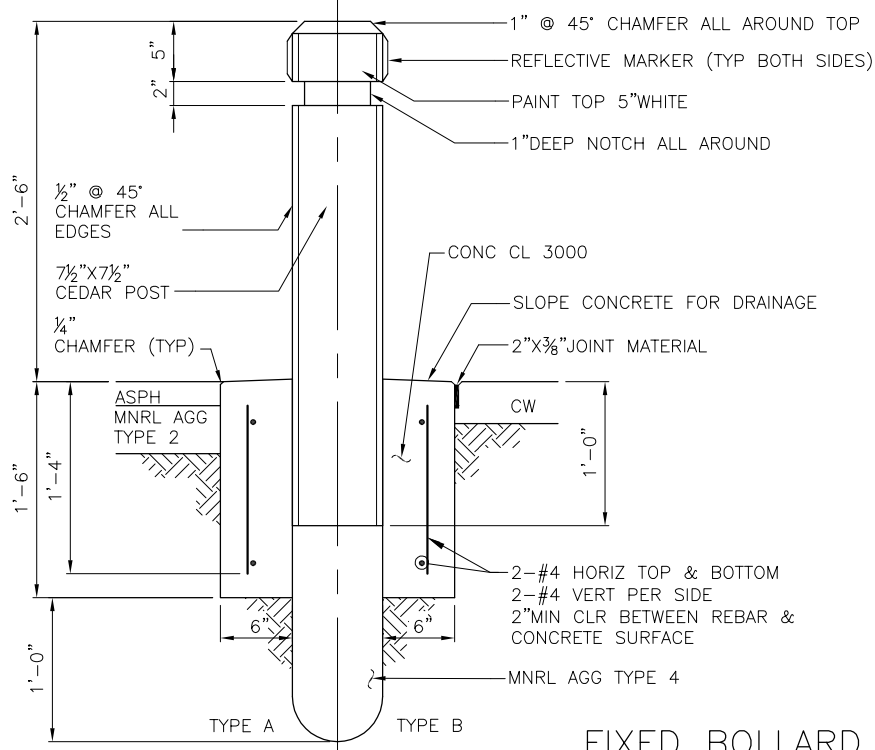
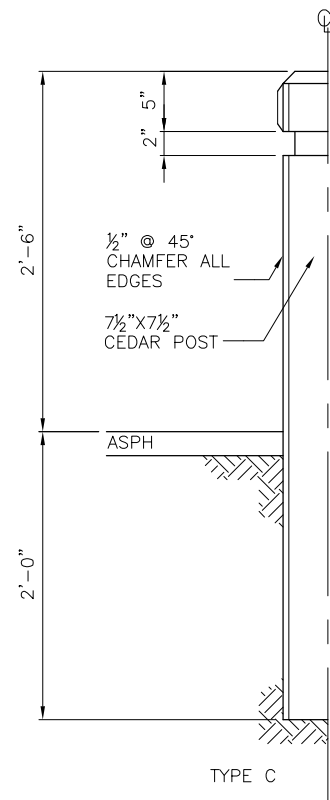


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ECOLOGY BLOCK, CONCRETE



REMOVABLE BOLLARDFIXED BOLLARD

REF STD SPEC SEC 8-02



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**FIXED & REMOVABLE WOOD BOLLARD**